The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

No. 2215.—VOL. XLVIII. LONDON, SATURDAY, FEBRUARY 2, 1878. [WITH SUPPLEMENT.] {PRICE ..... SIXPENCE. PER ANNUM, BY POST, £1 4s.

Lectures on Practical Mining in Germany.

CLAUSTHAL MINING SCHOOL NOTES.*

BY J. CLARK JEFFERSON, A.R.S.M., WH. SC.,
Certificated Mining Engineer.
(Formerly Student at the Royal Bergakademie, Clausthal).

SECTION III.

The publication of these Lectures is unavoidably suspended for two or three weeks. They will be then resumed, and continued regularly.

* Being Notes on a Course of Lectures on Mining, delivered by Herr Bergrath, Dr. Von Groddeck, Director of the Royal Bergakademie, Clausthal, The Harz, North Germany.

GEOLOGICAL SOCIETY OF LONDON.

Jan. 23—Prof. P. Martin Duncan, M.B., F.R.S. (President), in the chair.

John Eunson, C.E., St. Giles-street, Northampton; R. C. Forster, Glandore, Ireland; Walter Mawer, Great Grimsby; R. H. Solly, Purbright, Chislehurst; and the Rev. Arthur Watts, Belvedere House, Durham, were elected Fellows of the Society.——James W. Carrall, Tientsin, China; Edward Cleminshaw, M.A., F.C.S., King's School, Sherborne; Percy John Neate, Belsize Park, Hampstead; Arthur Nicols, Church-row, Hampstead; John Snell, Pydar-street, Truro; and John Spencer, Crawshaw Booth, Rawtenstall, Manchester, were proposed as Fellows of the Society.——James Adey Birds, B.A., Gloucester-terrace, Hyde Park; Rev. George E. Comerford-Casey, M.A., Cromwell-street, Nottingham; Lieut.-Col. H. H. Godwin-Austen, Shalford House, near Guildford; Sir Willoughby Jones, Bart., Cranmer Hall, Fakenham, Norfolk; and Henry Richard Ladell, M.A., London International College, Isleworth, will be balloted for as Fellows of the Society.

The following communication was read:—

1.—"On the Secondary Rocks of Scotland.—Part III. The Strata of the Western Coast and Islands." By John W. Judd, F.R.S., F.G.S., Professor of Geology in the Royal School of Mines.

Manchester Geological Society.—The monthly meeting of members was held, on Tuesday, at the Literary and Philosophical Society, when Mr. Joseph Dickinson, F.G.S., president of the society, was in the chair.—A paper communicated by Prof. Edward Hull, F.R.S., director of the Geological Survey of Ireland, was read "On the occurrence of Brine in the New Red Sandstone at Warrington." Having recently had occasion to visit Warrington, Mr. Hull was shown specimens brought up from a boring-hole made in search of water at the Dalham Ironworks. It was with much surprise that he learned that the water met with was strongly impregnated with salt, and on visiting the bore-hole he had an opportunity of tasting the water, which appeared to be as strongly saline as that pumped at Northwich. The proportion of saline matter ranged fram 4100 to 4600 grains per gallon. This surprise was caused by the belief that the water was drawn from the Bunter sandstone, and the occurrence of brine in this formation was, fortunately for the cause of water supply, very exceptional. The water became salt at a depth of 370 ft., at 500 ft. The boring had since been continued down to 900 ft. in red and mottled red sandstone, micaceous and faulty, with pots of hard red marl." An examination of the specimens left no doubt on Mr. Hull's mind that the strata penetrated belonged to the lower beds of the Keuper division. His explanation of this occurrence of saliferous beds at Warrington was that they were let down between two faults—one to the north and the other to the south of the valley of the Mersey. The direction of these faults probably corresponded with that of the river valley itself for some distance—a little north of east, and south of west. In the former direction they probably extend till they terminate againtst the great Warrington fault, which crosses the river in a north-west direction, with a downthrow to the east of about 500 ft. or 600 ft.—Some discussion followed, in which the Chairman (Mr. E. W. Binney) and other gentlemen took part.—A paper communicated by Mons. A. Demmler, of Paris, descriptive of the boring of a shaft 12 ft. diameter at the Rhine Elbe Colliery, Westphalia, was aftewards read and discussed.—[We shall give the details of this paper, and the discussion thereon, in an early Journal.]

Explosions in Coal Mines.—The first of a course of three lectures on this subject was delivered by Mr. T. Wills, F.C.S., at the Society of Arts on Monday. The lecture was principally introductory, and dealt with the nature and composition of coal. The various gases which can be obtained from coal were mentioned, and the nature and properties of marsh gas or fire-damp, the cause of most, but not all, explosions, were explained. It was specially noticed that the fire-damp is in no sense like ordinary coal gas, a product derived from any action on the coal itself. It was generated during the actual formation of the coal, and had remained shut in in the pores of the coal under enormous pressure—such pressure, probably, as to keep it in a liquid or even a solid state. The cutting of the coal, of course, relieved this pressure, and the gas was evolved, sometimes suddenly, sometimes so gradually that it continued after the coal was loaded on board ship, when an explosion was the natural result. Another interesting point was a reference to the enormous waste of this gas, which has great heating but little illuminating power. It has been calculated that the gas escaping from a mine in a given time often represents a heating value of one-tenth of that of the coal raised during that time.

Iridium and Osmium.—It is stated in San Francisco that 100 lbs. of the metal iridium, obtained in the Pacific States, could be supplied at a price much below that usually quoted, and a regular periodical supply of similar quantities kept up. It is suggested that this would permit of its application not only in rock-drills, but in watches, philosophical instruments, certain kinds of balances, and in graving tools, as iridium and osmium are the hardest metals known which can be found in any appreciable quantity. Both require the oxy-hydrogen flame to melt them, and, unlike platinum, are malleable with extreme difficulty. An increased demand for the metals is all that is necessary to make the saving of osmium and iridium a profitable metallurgic industry.

New Plunge Pump for Deep Mining.—The Cope and Maxwell pump, which has been specially designed to meet the wants of the deep mines on the Comstock, is reported to have given great satisfaction as an auxiliary pump for inclines, winzes, and the lower levels, for which purpose it has superseded other direct-acting pumps. The plunger works in soft packing, and works a long time; moreover, it does not require to be an exact fit to the pump cylinder. It is already at work at various mines on the Comstock and elsewhere, and its application is gradually extending.

Slate and Slate Quarrying.—In his treatise on this subject Mr. D. C. Davies remarks that "the four reprints of lettlers to the *Mining Journal* are, I think, now out of print." This is scarcely correct. The pamphlet—"Slate Quarries in Wales" by the late Thomas Cooper Smith—of which Mr. Davies mentions that we sold the first three editions—15,000—in five years is the only one out of print. The pamphlets "Slate and Slate Quarries Geologically and Commercially Considered," by Mr. S. R. Pattison; "The Slate Trade of North Wales," by Mr. Joseph Killow; and "Slate Quarries as an Investment," by Mr. John Bower, can each be had at our office, or will be forwarded by post on receipt of 1s. 1d., or 3s. for the three.

MINING IN THE FRENCH COAL FIELDS.

[From a Special Correspondent (Paris) of the South Wales Daily News.]

The coal fields of France are for the most part small in area, appearing on the geological map as mere dots and lines, as compared to the large black patches representing the coal fields on the geological map of England and Wales.

The French coal fields have been subjected to a very considerable amount of change, both from upheavals and severe denudation, which changed the original form at remote geological epochs. Ample evidence exists of the very severe dislocation of the strata of the French coal fields, for, in the course of working the different collieries, it has been ascertained that the coal seams have been contorted and pinched into all sorts of forms. We believe, therefore, that in no other coal field in the world is the difficulty of working so great. A very remarkable fact is that some of the coal measures here are found resting immediately upon the older strata, which is well known to exist below the *Silurian* measures, while at the same time they are immediately overlaid by the *chalk* formation. Generally speaking, therefore, the different groups of rocks, from the oolitic down to the transition granite, must have been entirely swept away by denudation before the coal measures were deposited. This is corroborated by the fact that but very little of the *carboniferous* system remains. The mines of France are under the direct control of the Government, and the mining engineers who have supervision are specially educated at the *Ecole des Mines*. The management of this department is vested in the Minister of Public Works. The establishment possesses a *Conseil des Mines* (composed of eight inspectors) which direct all affairs relating to mining operations. Great facilities are offered for a scientific education in mining, geology, mineralogy and chemistry, and to assist in this a large collection of minerals, fossils, and a library containing 30,000 volumes, are at the disposal of students, together with a series of continued lectures upon these subjects by various professors.

With regard to the coal trade of France, this is now in a more settled and prosperous condition. Combined with this there is no injurious effect produced from the internal disorganisations. This arises from the fact that the mining districts (three in number) are regulated in a different manner to those of England. The collieries in the three districts referred to are conceded to and worked by several companies, consisting of a number of wealthy gentlemen, each company working a considerable tract of coal. To meet the difficulty of trade disputes, which, happily, are not so dangerous as in England, these companies study greatly the comfort and welfare of their people, by providing house accomodation, together with other necessary conveniences, both at their homes and at the works. Thus the men do not think it needful to complain, from the fact that they see no country where they would benefit themselves by a change.

It will be a matter of considerable interest to give a concise statement of the various qualities of coal to be found in the basins of the Loire, with the uses to which they are appropriated. The collieries of Saint Etienne may be divided into groups producing different kinds of coal—*i.e.*, those producing small coal for heating, for manufacturing, bituminous coal for cooking, coal for gas, and coal for domestic purposes. A poorer class of coal is obtained from Chazotte and of Montcel, for the manufacturing of bricks. For purity and calorific power the coals of Beaubrun, Montrambert, Firminy, of the Treuil, and of Méons, take precedence. The coal of Rive-de-gier comprises four qualities—poor coal of semi-anthracite, of Comberigol, which is considered of little use except for the manufacture of brick; and the coal of the Reclus and of Assailly produces hard compact coal; coal from Haute-Cappe and of Corbeyre, chiefly used for the forges of the Grand-Croix; and hard coal of Rive-de-gier, coming from Sardon, Combes, Eygarande, Péronniére, and of Couzon, &c. The statistics of the mineral industry of France show the consumption and distribution of the coal of the various colliery basins. The basin of the Loire sends its coal into 45 departments; that of Valenciennes and of Aubin, in 33; that of Alais, in 23; that of Ahun, in 21; that of the Creusot and of Commentry, in 15; that of Brassac, in 18; that of Graissessac, in 16; that of Carmaux, in 15; that of St. Eloi and of Décize, in 12; that of Rouchamp, in 10; that of Aix and of Epinac, in 7; that of Vouvant, and Chautonnay, and of Monasque, in 6; that of Drac, and of Maurienne-Tarentaise, and Briançon, in 5; that of the Basse-Loire, of Bagnols, Sincey, and Langeac in 3, and the others without importance in one or two departments. Although 12 of these basins supply foreign countries, there are really only four at which the exportation presents a certain importance, and yields a larger quantity by some 100,000 tons. On the other hand, the foreign collieries supply, in a certain measure, a large number of French industrial centres, the Belgian coal being introduced in the greatest quantity into France. In 1872 it was shown that of the re-exportation, of which there was imported 5,107,760 tons, this was distributed among 42 departments, of which the Nord and the Seine consumed, the first 1,369,010 tons, and the second 1,164,470. In the departments of the Aisne and of the Ardennes, the consumption from the Belgian collieries was about 500,000 tons, in 1872. The department of Meurthe-et-Moselle consumed a little more than 350,000 tons; at least, for the departments of the Oise, Somme, Marne, Haute Marne, and of the Seine-et-Oise. The consumption in Belgian coals varied from 203,140 tons to 113,140 tons. At the same time the English coal introduced for French consumption was 2,079,460 tons, which quantity was distributed between 56 departments. The Seine-Inferieure took 481,220 tons, the Gironde 202,490, the Pas-de-Calais 164,500, the Seine 140,410, the Loire Inferieure 119,250, and the Calvad 108,480 tons. The collieries of Sarrebruck sent coal in the same year into the markets of 16 departments, but in little quantities, with the exception of the departments of Meurthe-et-Moselle and the Vosges, which consumed respectively 277,390 and 63,870 tons. The total consumption only attained to 509,230 tons. With regard to the collieries of Spain and of other countries, the quantities were too small to be taken into account.

An examination of the consumption shows that the Belgian coal and that of the North of France exhibits a serious competition, on the one hand, to the collieries of Sarrebruck, in the departments of Marne, Haute-Marne, and of Meurthe-et-Moselle, and all those not finding themselves masters of the market. The English collieries already opened towards the coast of the English Channel and the ocean find strong rivals in the collieries of the basins of Alais, Aix, and of Graissessac, where in a great measure the departments situated on the coast of the Mediterranean supply themselves. During the year 1872 the poorer class collieries formed 96-100ths of the consumption of the fuel in the department of the Alpes-Maritimes, of the Ande, of the Boucher-du-Rhone, of the Corse, of the Hérault, of the Pyrénees-Orientales, and of the Var. The departments of the Allies, of the Seine, and of the Seine-et-Marne, received the produce of the collieries of twelve basins, as much of the French as of other countries. The departments of the Auber, of the Doubs, of the Isère, of the Loiret, of the Niévre, of Seine-et-Oise, and of the Yonne, supplied themselves from ten different sources. The departments of the Côte-d'or, of the Herault, of the Jura, of Loirx-et-cher, and of Saone-et-Loire contain nine different basins. The departments of the Alpes-Maritimes, of the Cher, of the Gard, of the Pay-de-Dome, of the Rhone, of Vaucluse, and of the Vienne, receive from eight sources. In the departments of the Bouches-du-Rhone, of Indre-et-Loire, of the Loire, of Maine-et-Loire, of the Haute-Saone, of the Var, and of the Haute-Vienne, the consumption was derived from seven different sources. Lastly, the markets of all the other departments were supplied by some collieries of three, four, five, or six sources, with the exception of the departments of the Corse, of the Cotes-du-Nord, of the Finistére, of Ile-et-Vilaine, of Morbitan, and of the Vendee, which are supplied from two colliery sources. The uses to which the combustibles are appropriated will be gathered from the following:—Combustiles used at the mines and other places, fuel used for steam for export purposes, and that used for the heating of public establishments and private houses. These particulars will appear more clear from the figures I will now give. In 1870, of the 18,830,040 tons consumed 13,279,750 tons, or 70½ per cent., were absorbed by factories; 2,798,070 tons, or 14·9 per cent., were employed for domestic uses; 1,903,150, or 10·4 per cent., were utilised for steam purposes; and 789,060, or 4·2 per cent., were consumed in mineral exploration of all kinds. In 1871 the consumption remained nearly stationary—it did not increase to more than 30,330 tons, and the proportion remained nearly the same as that previously enumerated. In 1872 the consumption increased notably, and this was due to a considerable extent to the greater absorption of the factories. There were 23,233,330 tons distributed as follows:—For mineralogical, gas, and manufacturing establishments, &c., 16,834,280 tons; domestic economy, 3,096,040 tons; for steam transport purposes, 2,385,900 tons; and to the mines, 927,110 tons, making the previous total of 23,233,330 tons.

The exportation of English coal has been notably less during the last month of 1877 than that of the corresponding months of 1875 and 1876. One can very fairly judge of this from the comparative statement which follows:—The quantity of coal exported during the month of November of the three years 1875, 1876, and 1877, from different ports of Great Britain to certain destinations in other countries for 1875 was 1,278,797; that for 1876 was 1,214,907; and that for 1877 was 1,130,584 tons respectively. The war which has been and is still raging in the East abundantly suffices to explain the reasons of the diminution. The quantity taken by Russia is 12,707 tons, instead of 51,659 tons, and that of the Turks is 13,000, instead of 26,000 tons. However, the total exportation of the first eleven months of last year, 1877, does not show much deficiency, as it offers means of determining sufficiently exact between 1875 and 1876. During the first eleven months of 1875 the number of tons were 13,388,271. In 1876 the number of tons amounted to 15,144,609, and in 1877 to 14,311,689. But it is not to a falling off of the commerce of other nations that we must more particularly attribute the decline of the coal trade of England. No doubt, however, the foreign production, which goes on increasing, contributes greatly, by a vigorous concurrence, to lessen the prices; but it is very certain that those malevolent strikes add to an enormous extent to the general depression—much more so, indeed, than any other possible influence. The greatest possible economy is exercised in the development and working of the collieries on the Continent, and it were well if the English proprietors would study and copy the example. In France and Belgium the proprietors seem to be satisfied with a less profit on the capital they have invested than the English. The good behaviour of the workmen, who are satisfied with less wages than the English workpeople, enables continental producers of the raw and manufactured materials to compete in and command the markets to a very considerable extent. The current opinion here is that it will be next to impossible for England to regain the trade she has wantonly lost by and through the misconduct of certain illiterate demagogues, who have produced for their own selfish purposes a general rupture between capital and labour. One great and important point to be considered by England is whether trade matters are questions of agreement between masters and men or not, and of the unlawfulness of intervention by a third party. From time immemorial it has been known to be a universal maxim that a party not interested has no right to interfere, although the law on the subject might not be sufficiently stringent. It is desirable, however, that further legislation on this very important subject should be carried on, and until such enactments have been passed as will entirely prevent the third party from interfering in a trade matter, the influence of England by her commerce will remain in abeyance, and eventually reduce her to a third-rate power.

MINING IN ARIZONA AND IN MEXICO.

The enormous richness of the mines of Mexico has long been almost proverbial, so that the miners interested in the Globe district of Arizona may fairly be congratulated on a closely similar kind of country to work upon. Within the past few weeks Mr. H. S. Jacobs, M.E., of San Francisco, has made a thorough inspection of the Arizona mines referred to, and after more closely studying their structure as they progress in development, and the general geological formation of the rocks and the surrounding country, has made an exhaustive report, in which he remarks that he was deeply impressed with the striking analogy between these mines and those of Old Mexico. He explains that the mines of Globe district are principally found in the primitive formation—granite, porphyry, clay-slate, and dyke—and follow the general stratification of the country. The veins are strong, well defined, and some of them are traceable for miles in length. The vein matter is composed of quartz, crystallised felspar, yellow spar and limestone, carrying chloride of silver, native silver, and some sulphurets and silver glance; some of them carry a proportion of galena, copper, antimony, and arsenic. The veins of the Globe district, and particularly the Veta Madre, on which is situated the Stonewall Jackson Mine, are exactly similar in their general character, formation of the country rock, and their contained gangue matter to many of the most productive mines in Mexico. This Veta Madre traverses the primitive formation, and carries native silver and chloride silver, with a gangue of quartz, crystallised felspar, limestone, &c. This mine has produced, as far as developed, already some quite large masses of native silver, and the ores shipped to California have averaged the large amount of $12,638 per ton, which goes to show that this vein may yet in other respects more closely resemble some of the great mines of Mexico.

The Mexican veins are to be found for the most part in primitive and transition rocks, and rarely in rocks of secondary formation. Beds of amphibolic, porphyry, greenstone, amygdaloid, basalt, and other trap formations of an enormous thickness, cover the granite and conceal it from the geologist. The most ancient rock known in the district of Guanaxuato is the clay-slate, which reposes on the granite rocks of Zacatecas and the Peffon Blanco. It is ash grey, or greyish black, frequently intersected by an infinity of small quartz veins, which frequently pass into talc slate and schistose chlorite. Humboldt considered this clay-slate as a primitive formation, though the thin beds contained in it surcharged with carbon approximate to a transition slate. Humboldt states moreover of the mines of Mexico that the common felspar belongs to the most ancient formations, as the mines of Pachuca, Real del Monte, and Moran, which furnish twice as much silver as Saxony, are contained therein. We frequently discover only vitreous felspar in the porphyries of Mexico. The veins of silver of the Real de Catorce, and the Doctor and Xaschi, near Zimapan, traverse the Alpine limestone (Alpenkalkstein); and this rock reposes on a poudingue with siliceous cement, which may be considered as the most ancient of secondary formations. The Alpine limestone and Jura limestone contain the celebrated silver mines of Tasco and Tehuiltopec, in the intendancy of Mexico.

The mines of Globe district, Arizona, Mr. Jacobs found to be also in the primitive formation, and are of the same character as the great producing mines of Mexico. They are on the western slope of the great Sierra Madre range. The vein matter contains spar and limestone intermixed through the quartz. The mass of the vein matter or gangue found in these great mines in Mexico consist principally of quartz, calcareous spar, hornblende, &c. The veins of Guanaxuato contain common quartz, carbonate of lime, pearl spar, splintery hornstone, crystallised felspar, &c. Zacatecas contains quartz,

splintery hornstone, calcareous spar, a little sulphate baryte, and brown spar. The most abundant metals, prismatic black silver, sulphuret or vitreous silver, mixed with native silver and silberschwartz. The catorce gangue is decomposed, containing lime-spar, red ochre, and muriated and native silver. Tasco and Real de Tehuilotepec contain calcareous spar, lacteous quartz, gypsum, oxide iron, galena, &c. The great producing mines of Chile partake of the general characteristics of the mines of Mexico. Henry Sewell, mining engineer, a gentleman of great experience, in a letter appearing in the Mining and Scientific Press of 1872, describes the mines of Chanarcillo, Chile, which were worked from 1836 to 1848, a period of 12 years, and produced $20,000,000 from the surface down to a depth of 250 ft. The formation was compact limestone, and the vein matter was similar to the mines of Mexico, containing quartz, felspar, lime, &c., carrying chloride and native silver. At the depth of 600 ft. the same limestone formation was encountered again, and the sum of $25,000,000 additional was extracted in four years, the ores carrying ruby silver and native silver. The amount of silver produced in this formation in Chile is about $200,000,000 up to date.

After giving some interesting particulars as to the production of Mexican mines, Mr. Jacobs concludes by remarking that for a long period of years the northern portion of Mexico, the States of Sonora and Chihuahua, as well as Arizona and New Mexico, have been almost exclusively in the hands of the warlike and barbarous Indians of the North. These depredatory bands have descended upon every incubation in the way of mining enterprise, or anything tending to advance or extend civilisation, retarding and holding back the Mexicans from the south, and the Americans from the east or west, from going in and prospecting or developing the vast and rich portions of the continent. It has been well known by the Mexicans for many years that Arizona abounds in rich and varied mineral wealth. Many times during the last century have they attempted to penetrate Arizona for mining purposes, and as often been driven back, and forced to abandon the country so long been sought for; and it is only within the past two years that our Governmnent has been enabled to silence these hostile tribes, and open up this country for prospecting and mining. Arizona is like the bordering States of Mexico—Sonora and Chihuahua—abounding in vast mineral wealth; and with the impetus given to mining in the last 20 years, together with the scientific advancements in mining, and the modern appliances in working the ores, and with the advent of capital and American energy, Arizona will be enabled once more to open out her mines of wealth to the wondrous eyes of the world.

FOREIGN MINING AND METALLURGY.

The Syndicate of Forgemasters has held a special meeting at Paris for the purpose of considering the treaties of commerce question, which is virtually adjourned, as treaties are only renewed from year to year as they fall due. An equipment of the French works with good tools, a universal network of railways and canals, with regular and reduced tariffs, good laws, and security in connection with the internal affairs of the country—these are the points at which the present Cabinet seems disposed to aim preferentially, rather than at a manipulation of Customs' duties, which it looks upon merely as a fiscal resource. This being the case, complaints are not at all unlikely to be heard from industrials imbued with Protectionist ideas when the renewal of expiring treaties comes on for consideration. The commercial situation is strained and difficult, the production of iron has accordingly been reduced as much as possible, and prices are still drooping in French iron-making districts. At Paris especially there has been a sensible fall in iron, prices having receded from 7*l.* 12s. to 7*l.* 4s. per ton, in warehouse. In the Champagne group mixed iron has fallen 8s. per ton—from 7*l.* 4s. to 6*l.* 16s. per ton; the forges are also only working to the extent of about 60 per cent. of their productive power. In the Nord the situation is much the same; one rolling-mill in this district has resumed the manufacture of iron rails for the Eastern of France Railway Company. The sale of the fine iron of the Comté group has been reduced to the extent of one-fourth. The Northern of France Railway Company has let a contract for 3500 tons of steel rails. The two blast-furnaces of the Liverdun Company have just been blown out; a syndicate of Champagne forgemasters is talked of for the purpose of taking over these works. As regards the Meurthe-et-Moselle group, it may be added that the Micheville blast-furnace is about to be lighted; this furnace will produce 70 tons per day. Refining pig has brought 2*l.* 10s. per ton in the Meurthe-et-Moselle.

The Monceau Works have obtained a contract for 1700 tons of iron rails in an adjudication which has just taken place at Utrecht; the price to be paid for these rails is 11,300*l.* for the 1700 tons. The tendering appears to have been a little wild, as the Hoerde Company required 15,085*l.* for the 1700 tons. The Acoz Forges Company asked 13,250*l.* Belgian ironmasters, it may be remarked, continue at work, but at such cheap and reduced rates that they cannot be too careful as regards the prices at which they purchase raw materials. A meeting of the shareholders in the Kharkow and Nicolaiew Railway (Russia) has been held this week to consider the purchase of 10 additional locomotives.

In the Belgian coal trade sales are effected with difficulty—quite as much difficulty as a week since. The markets show no animation, and scarcely any contract of importance can be reported. The house of Bracq-Miroir, of Condé, publishes a statistical table every year indicating the general movement of the port of Condé. It appears from the table for 1877 that 488,000 tons of coal and 12,660 tons of coke entered France last year *via* Condé.

The Union Joint-Stock Company for Mining and Iron and Steel Manufacturing (Dortmund) has tendered the lowest prices in the competition for the fitting of the iron docks at Amsterdam, and has therefore been entrusted with the contact by the Dutch Government. The quantity of material required is 3,000,000 kilogrammes, and the work must be completed by November this year. The high-blast furnaces, rolling works, and bridge building establishments of the company have consequently become the scene of the highest activity.

Dulness still characterises the French coal trade. In the Nord, the Pas-de-Calais, and the Centre there are still complaints that the extraction is being diminished, that stocks are increasing, and that sales are made with great difficulty. The winter campaign is regarded as practically over and lost. The question of the improvement of navigations continues to engage a good deal of attention. A report prepared upon the subject by the Minister of Public Works does not deal with the navigation of the Seine between Paris and Rouen, it being the intention of M. de Treycinet to shortly deposit in the Chamber of Deputies a special Bill with reference to this navigation, so as to assure to the Seine between Rouen and the capital a depth of at least 12 feet. We have already stated that the French Mechanical Company, known as J. F. Cail and Co., is not enabled to pay any dividend for 1877. In 1876 the operations of the company were attended with a similar adverse result. In 1875 the shareholders received a dividend at the rate of 8½ per cent. per annum; in 1874 and 1873, 17 per cent. per annum; in 1872, 22 per cent. per annum; and in 1871, 17 per cent. per annum. Here we have another illustration of the difficulty and depression of the times.

NOVEL FUEL ECONOMISER.—An improved corrugated iron air bridge and fuel economiser has been invented by Mr. R. K. MCMURRAY, chief inspector, of the Hartford Steam Boiler Inspection Company, which it is claimed provides an efficient means for economising fuel, reducing the time and expense usually required for the renewal and repair of bridge walls, and preventing smoke by the admission of a proper supply of heated air to the gases evolved by combustion. The principal feature of the device is that last mentioned, the inventor claiming positive advantages through the mingling of heated air instead of cold air with the gases. The bridge is also constructed so as to offer increased resistance against blows, shocks, and the effects of expansion and contraction, while it may be easily removed for renewal or repairing. The bridge is hollow, and consists of a fire plate, a back or base plate, and a dispersing plate. The fire plate is corrugated in order to give it increased strength, and is provided with a light bottom flange, which rests upon the bridge wall and thence rises vertically for about two-thirds of its height, at which point it is inclined at an angle of 45°. The bottom plate, conforms in the relative position of three of its sides, to the fire plate and terminates below in a horizontal foot. Both the fire plate and base plate are connected by bolts passing through thimbles so as to form a hollow case. The perforated diffusing plate is inserted in groves formed in the other plates. A series of air supply openings are formed in the back of the bottom plate near the base. Above them extends a deflecting flange. The device is so set that the lower edge of the fire plate is slightly below the level of the grate bars, and its ends are closed by the side walls of the setting or by metal plates fitted therein, the latter arrangement allowing of the bridge being removed as desired by drawing it out longitudinally through the opening in the side wall. The fresh air enters the space between the back plate and fire plate through the supply openings, and is deflected by the flange against the heated surface of the fire plate and thence passes upward along the space between the two plates. The air thus becomes introduced in a minutely divided condition into the combustion chamber at a temperature closely approximating that of the gases escaping from the furnace. It mingles with said gases, and is claimed to oxidize the carbonic oxide and to effect complete combustion, with a corresponding economy of fuel and prevention of smoke.

Meetings of Public Companies.

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.

The ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Thursday,

Mr. A. T. THOMSON in the chair.

Mr. J. W. PURCHASE (the secretary) read the notice convening the meeting, and the minutes of the previous meeting, which were confirmed. The report and accounts were taken as read.

The CHAIRMAN said he thought they might congratulate themselves upon the progress the company had been making during the past year. Things had been going on very satisfactorily. There was one loss the company had sustained, that was the loss of their very excellent and much esteemed Chairman, Mr. Moor. He was a man admirably adapted for the post he filled. A man of vigorous sense and sound judgment, and a man who had a great acquaintance with the affairs of this company, and had been accustomed to administer important affairs. Besides that, Mr. Moor was well acquainted with all the details of the working of this company, and this, added to a kindly and genial manner, acquired for him the esteem of his colleagues, all of whom felt his loss deeply, a feeling which would be shared by the meeting. (Hear, hear.) The success which the company had achieved during the past year, which contrasted very favourably with the working of the company for some few years previously, was attributable in the main to the working of the tribute system. This system was now getting very much into use, and was being generally adopted by companies owning poor quartz. Various companies in the neighbourhood had followed their example, and those who had been able to retain their men had greatly profited by it, but they had to deal with a class of men who required a great deal of tact to manage. They were very independent, as well as energetic and intelligent. They were a peculiar class of men who were being trained for the working of the mines, and many mines which could not be worked under any other arrangement were being successfully worked under the tribute system. Previously the company had been working on the contract system. They had done all the dead work, and contracted to have the quartz taken out at so much per fathom, and sometimes the quartz raised had not paid the expenses of crushing, but with the tribute system the self-interest of the parties engaged were brought into play, and where the quartz was poor and variable—being perhaps 12 or 15 dwts. to the ton on one side of the lode, and on the other side not 1 dwt.—it was absolutely essential that a skilled eye should observe every piece of quartz coming out of the mine. In this way the self-interest of the men would prompt them to take out only the quartz which would pay, and that could not be done under the contract system. They had as many as 320 men at work at a time, and so far as he could learn theirs had been the most successful of any of the mines in the neighbourhood. This was in a great measure due to the tact displayed by Mr. Bland in the management of the mine, and the application of the tribute system. An exact comparison of the results of this system could not be made, as they could not get at the costs incurred by the tributers. Sometimes their costs were very heavy indeed; for instance, one party worked deadwork for twelve months, and their first crushing did not pay. If they could take the whole 320 men and divide the results of their working he did not think the average would be that they had earned more than ordinary wages. Mr. Bland treated the men with the utmost consideration, and assisted them by all the means in his power, and it was due to his tact and judgment that the company had been able to keep such a large body of men together, and that they had been as successful as they had. (Hear, hear.) Another advantage the company derived from this system was that the tributers assisted them in the exploration of the mine. Their prospects were thus very encouraging for the future. The report gave all the information the board was in possession of, but if any further explanation were required he would only be very happy to give it. He then moved "that the report and accounts as presented be received and adopted."——Mr. J. R. MACDONNELL (deputy-chairman) seconded the motion.

Mr. ROBINSON asked why the tribute system was not sooner adopted by Mr. Bland?——The CHAIRMAN, in reply, said a certain portion of the mine had been worked on tribute for two or three years, but it had not been a popular system with the men, and they had to be gradually educated to it. The system was now becoming popular with the intelligent body of men, but they required capital to undertake the work. The Chairman also replied to two or three unimportant questions on matters of detail, stating that the last telegram from Mr. Bland advised them of the transmission of 1250*l.*

The report and accounts were then unanimously adopted, and the dividend recommended 1s. per share, making with the interim dividend already made 10 per cent. for the year, was declared, free of income tax, and payable on March 1 next.

The retiring directors—Messrs. A. Cobbett and A. T. Thomson—were re-elected, as were also the auditors, Messrs. H. Ransford and G. Molineux.

Votes of thanks were passed to Mr. Bland (the resident director) and to the Chairman and directors, and the meeting then terminated.

VICTORIA (LONDON) MINING COMPANY.

The ordinary general meeting of shareholders was held at the Cannon-street Hotel on Thursday,—Mr. A. T. THOMSON in the chair.

Mr. J. W. PURCHASE (the secretary) read the notice calling the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said he was sorry they could not give a better report or a better dividend. The affairs of the company had not progressed so satisfactorily this year as they could wish, or as they did last year, which had been occasioned by what miners called a dislocation of the lode. They were progressing very satisfactorily until suddenly and unexpectedly the lode was found to be broken in halves; since then the lode had been a little dispersed, and the returns from it had not been so profitable as they were, but they were gradually improving, and the tributers were beginning to show some returns. The manager was putting up 12 more heads of stamps, which would crush a large amount of quartz, from which it was hoped there would be increased returns, and that the yield would gradually improve if the lode should again draw together, as there seemed to be every prospect of doing. A letter had been received from the manager, dated later than the report, in which it stated—"It has been decided to add ten more heads to the stamp plant, and this will bring the company in some further profit for stamping for tributers, as well as returns from pyrites." The letter further stated—"A dividend of 5s. per share has been declared, payable this week, and the amount will be forwarded next mail." They were very much reduced to the South Clunes Company now, as the other were not doing much, if anything, though possibly they might get something from the London and Melbourne.

Mr. MACDONNELL seconded the resolution.

A discussion ensued with regard to the remuneration of the directors, and on one of the minor points, after which the resolution was put and carried.

The retiring directors and auditors were re-elected.

A dividend was declared of 7½d. per share on the fully paid-up shares, and of 6d. per share on the partly paid-up shares, both free of income tax, payable on and after March 1 next.

A resolution was also passed to enable the board to reduce the minimum number of directors from five to four.

A vote of thanks to the Chairman and directors closed the proceedings.

GORSEDD AND MERLLYN CONSOLS.

An ordinary general meeting of shareholders was held at the offices, Great St. Helen's, on Wednesday,

Mr. FRANCIS RUDALL in the chair.

Mr. E. J. BARTLETT (the secretary) read the notice convening the meeting.

The following report from Mr. W. Parry was also read:—

Since your meeting last year we have raised 500 tons of ore from the new pit from a distance of 50 yards each side of the shaft by 20 yards in depth, and have not nearly exhausted the ore in that distance. The ground in the lower portion of the said 20 yards is much harder than in the upper part, consequently it requires much more time to raise the ore from this part of the mine than from the soft ground which we had for the first three or four months. The vein, however, is quite as strong and masterly at the bottom level as at any other point, containing good lead and a strong mixture of blende of first-rate quality, a parcel of which we shall soon have for sale. We have also during last year driven a cross some 500 yards west of the new pit to intersect the new vein in that portion of our sett for a distance of 140 yards, and I have much pleasure in informing you that I think we have now attained our object, for on Saturday the men came against the hanging-wall of the vein, and to-day they think that there can be no doubt of its being the right vein, but in a few days we shall be able to speak more positively of the value of this discovery, which should it prove anything like the first 100 yards already worked for 20 yards in depth will (although a small portion of our sett) be of immense value. We have also put up a new 30-horse power Robey engine, and erected the building necessary for same, and I have much pleasure in stating that it works beautifully, and will suit our purpose in every respect, being capable of much more work than we have for it at present, owing to the small quantity of water we have to contend with, for we have not yet put down the pumps, although they have been on the pit bank for some time. I think I need not enter into particulars of the ore sold, &c., which is so clearly shown in the balance-sheet now in your hands. With regard to the future workings of the mine, I beg to propose that as soon as the engine is worked smooth, and the days lengthen, or about March 1, to sink the pit another 20 yards to prove the ore in depth, and open further ground, so as to increase our monthly sales. We are looking out for the best practical boring machine, and we have, I think, sufficient steam-power in our new engine to work a compressor, and I hope to get the sinking done in less than half the time than by hand labour. We shall also put the old engine in thorough repair, so have to be ready to work on a new pit, which we shall have to sink on the new discovery. I beg to congratulate my co-shareholders on the result of last year's workings, which I have every reason to believe will not only continue, but considerably increase for years to come.

The CHAIRMAN formally proposed that the balance-sheet to the 31st December, 1877, the directors' report, and the local director's report be received, adopted, passed, and allowed. He was sorry they had not a larger number of shareholders present, but he supposed they perused the reports which appeared periodically in the papers, and perceived that the company was going on in a satisfactory manner, and did not think it worth their while to attend. He had occupied the chair somewhere about eight times since the mine was opened under very different circumstances to that under which they were now assembled, and he now congratulated the shareholders and also himself on the great improvement which had taken place in every respect with regard to the mine. The directors had had to contend with difficulties in regard to money and also placing the shares. However, they succeeded in that and in raising the money, and they had now arrived at their present position, and instead of having a balance of only 200*l.*, as on a former occasion, they now carried forward a balance of 1193*l.* 3s. 9d. It might be a matter of disappointment to some shareholders that the directors in their report were not able to announce a further dividend. Well, the directors were in hopes that a second dividend was not far distant; but there was a great deal of work to be done in the mine. They had read all the reports which had appeared in the *Mining Journal*, and would have seen that they had gone through some very hard ground, which had delayed the raising of ore. Further, they had had to erect a very powerful engine to work upon lower levels, and the local director stated it would be necessary to sink 20 yards further, which needed an expenditure of money. The board and the secretary (who was indefatigable in his management of the mine) agreed on the desirability of keeping a considerable balance in hand, and of having a reserve fund capable not only of pursuing the working of the mine, but subsequently, it might be, of equalising the dividends. The directors hoped to see their way shortly to a further distribution. The directors were the largest shareholders, and were as much interested as the shareholders in having a dividend, but at the same time they felt it was most desirable that this important property should be fully and satisfactorily developed, so as to bear out the hope of the local director (Mr. Parry) that they might have a satisfactory dividend for years to come. (Cheers.) The secretary had recently been on the mine and underground, and would be happy to tell the shareholders as to the progress of the works, and he would now call upon Mr. Bartlett to make a statement with regard to his visit.

Mr. E. J. BARTLETT said he would make a preliminary remark with regard to one item in the accounts—stationery and sundry charges 60*l.* 16s. 9d. Some shareholders might imagine that money was expended in London, but such was not the case. There was only 15*l.* 12s. 6d, expended in London in stationery, and 7*l.* 16s. 6d. for stamps, and the whole of the balance was expended in sundries upon the mine. Referring to the mine itself, he said that for a long time they had been driving a cross-course north to intersect the rich lode 500 or 600 yards in a westerly direction, and no doubt it had been a source of surprise to many shareholders that the directors could only just announce that they had succeeded in intersecting the vein. They had driven a very considerable distance over 120 yards to strike this lode, and the line of the level had passed the point where the vein was stated to exist. Without going into the why and the wherefore of the delay in the intersection, it was a proud thing to be able to say that the lode was at last intersected. Many shareholders might ask why the directors were not in a position to say what was the value of the lode. But it was necessary to have two or three days work upon it before they could say what its produce was, but for his own part he did not expect they would be able to put any value upon it at all, because they knew they would intersect the lode very shallow, and when once it was intersected they would have to sink upon its course before they got into a bearing formation. They would recollect that the lode which was discovered at the new shaft, and from which they had sold 500 tons of lead, did not yield until a depth of 50 yards was attained, and the natural indication was a rib of spar crossing the level; after sinking through the rib the lode opened up like a V turned upside down. Where they had intersected it in the cross-cut it was more shallow than where they raised the lead, so they must sink some distance beyond the point of intersection before they expected to reach the lead. As to the probable value of the sinking operations, out of the fissures in the rocks they had specimens of lead and copper forced out into the north and south lode, plainly indicating to those practically acquainted with mining undertakings that the lode they were to intersect would prove rich as at other points. So if there had been any anxiety on that point it had been satisfactorily cleared up; and when they had sunk the required distance, and opened east and west upon this course, they would have doubled the number of points in the mine, from which it was reasonable to expect that they would extract the same quantity of lead as from the other portions. It was most important to call attention to a remark made in Mr. Parry's report, in which he stated that 500 tons of lead had been obtained from a distance of 50 yards on each side of the pit, and 20 yards in depth. He thought that was a perfectly marvellous result, and showed how rich and powerful the lode must be in that very small piece of ground to yield between 7000*l.* and 8000*l.* worth of lead. The shareholders would probably want to know two things—Why the ground had become harder, and what was the reasonable expectation as to the future of that portion? Up to two months ago the drivings upon the lode were conducted due east and west, and the lode began to take a slight turn, and whilst a change in the lode took place they had had harder ground to go through, but now he was very glad indeed to be able to tell them the lode had nearly resumed its natural course, and was improving, and as they went on the ground was becoming easier, and there was no reason why soon they should not increase to over 50 tons of lead per month. Now, with regard to the sinking of the shaft, it was most desirable that they should open more ground. The vein was extremely strong on the present bottom, and the directors would be extremely delighted if, instead of selling 50 tons per month, they could bring it up to 100 tons per month, for although the expenses would, of course, somewhat increase, there were certain dead charges which remained the same whether the output was 50 tons or 100 tons. As regarded the sale of the blende, he thought they might expect 3*l.* 15s., if not 4*l.* per ton, from that. There was one subject referred to in the directors' report—the drop in lead, which had made a difference in the returns of about 800*l.* This was a matter over which the directors had no control, and they would see, notwithstanding the handsome profit made in the year, that if lead kept at the price it was when they made the discovery there would have been that amount more to the credit of profit and loss. There was another point of great importance—a very large amount had been written off against sales of lead this year, for money expended during 1876. Shareholders might say—Why should you burden the profit of 1877 with the costs of 1876? Well, he could imagine a shareholder asking that who had gone into the concern as a matter of speculation, but to those who embarked in it as an investment it should be pleasing to know that they were gradually reducing the items in the capital account; so year after year, setting aside a good mining dividend of 10 or 15 per cent. (and he did not think a mining dividend should be less than 15 per cent.) they should go on further with the reduction of standing charges. There was another important point to which he would refer. The directors had ordered the pumps, which had been on the pit bank for a long time, and it was a most satisfactory thing to be able to say that they had never had occasion to put the pumps down. He made that remark because he knew there were some people who said it was very probable that they would meet with large bodies of water as they drove east and west upon the course of the lode. In 1881 the world was coming to an end, according to Mother Shipton, and they must treat the remarks made that the water was coming in in the same manner they would Mother Shipton's prophesy. They must recollect that in all great concerns there were what were called "bears."

As regarded the future of the mine, there was reason to believe that not only would the returns continue, but they would be considerably increased for years to come. He was fully able to endorse what Mr. Parry had said in that respect; if in 50 yards on each side of the pit, and 20 yards deep, they had been enabled to sell over 7000*l.* worth of lead, purchase a splendid engine, and carry out developments, beyond paying a tolerable dividend to the shareholders, and carrying forward 1193*l.*, he thought that that could be looked upon as a grand result, but at the same time it was not a criterion as to what they might do in the future. He hoped from the greater workings below the new shaft they would shortly be able to make the returns 75 tons per month; and from the assistance they would be able to get from the north shaft, now they had intersected the lode, he did not see what should prevent them making the sales 100 tons per month, ultimately giving handsome returns, with the knowledge that the reserve was not being trenched upon. With respect to their not having declared a dividend, there was sufficient for more than 2s. 6d. per share, but it was better in all concerns, especially in a mining concern, to establish a reserve fund; even if they only started with only a few hundreds, by gradually increasing it month by month, and year by year, they would be able to provide for all contingencies which might arise, and almost ensure a certain dividend. There seemed no doubt the shareholders possessed a magnificent property, and the results already obtained in the short distance they had worked showed what splendid results might be expected in the future. (Cheers.)

The Chairman read a letter which had that morning been received from a Yeovil shareholder, expressing his great satisfaction with the improved position of the property, and suggesting that some handsome and substantial recognition should be made to Mr. Bartlett for his great and valuable services in bringing the company to its present position. (Cheers.)

Dr. Birt seconded the resolution for the adoption of the report and accounts. He said the shareholders must excuse him from making any lengthened remarks, as he was suffering from hoarseness, and would only say he thought the shareholders would shortly find the company in a still more favourable position. He hoped that other lodes would receive attention as well as that upon which they were working.

The Chairman, in answer to Mr. Mackeson, Q.C., said that the engine had been paid for. There were about a dozen shafts altogether, six of which were in working order.

Mr. Mackeson went on to express his satisfaction with the position and prospects of the mine, and especially with the policy of establishing a reserve fund. He fully endorsed the remarks relative to the great services of Mr. Bartlett, and the desirability of substantially acknowledging them.

The Chairman said the directors fully agreed with these remarks, but he believed the views of Mr. Bartlett himself were that at present no steps should be taken in the direction indicated.

Mr. Bartlett said that whilst thanking those gentlemen for their kind expressions, he thought the time had not yet arrived for any step to be taken in the direction indicated, and said that if anything was to be done he should prefer it being left till the mine was in a still more satisfactory position, as he had no wish to saddle the company with any further expense at present. (Cheers.)

The resolution for the adoption of the report and accounts was then put and carried.——On the motion of Mr. Mackeson, seconded by Mr. Godfrey, the retiring directors, Mr. Rudall and Mr. Eastes, were re-elected.

The Chairman acknowledged the re-election of himself and colleague.

On the motion of Mr. Williams, seconded by Mr. Mackeson, the auditor, Mr. Alfred Conder, was re-elected, with a remuneration of 10 guineas.

On the motion of Mr. Mackeson, seconded by Mr. Godfrey, a cordial vote of thanks was passed to the Chairman and directors, and the meeting broke up.

DENBIGHSHIRE CONSOLIDATED MINING COMPANY.

A meeting of shareholders was held at the offices of the company, Great St. Helen's on Tuesday,

Mr. Francis Rudall in the chair.

Mr. E. J. Bartlett (the secretary) read the notice calling the meeting, and also the following report of the agent:—

Jan. 30.—The 112 east has been driven about 30 yards through extremely hard ground. We have also risen and stoped at the back of this level about 15 yards. At this point we met with a nice body of ore, and at one time it was believed we had at last intersected the Coed-y-fedw lode; from subsequent diallings, however, of the Coed-y-fedw workings we found that we had only pushed through an off set or string, and that the main lode is still ahead of us. I may here mention that a great amount of work has been done at Coed y-fedw during the year in opening old sumps and clearing levels in order to enable us to dial the lower and more extensive workings. The 80 was found to be free from water and clear for a distance of 150 yards. The ground here was of a highly mineralised character, and the lode a most powerful one. As the engine-shaft is clear to a depth of about 60 yards I think it highly desirable that in the ensuing summer a small portable engine should be erected to clear it to the 80, and a set of six men put to drive on the lode eastward. We should be in a good trial for lead every foot we advanced, and a valuable run of ore might speedily be discovered, besides which a further light would be thrown upon the true direction of the lode, which at the extreme end of the level takes a decided inclination to our 112 east. We should also be able to set tributers to work at several points. In the roof of our 112 east tributers have latterly been at work at a point about 50 yards west of the rise already noted, and have met with very gratifying results. The lead discovered here has also been found at the intersection of another string of the Coed-y-fedw with our 112 east.

Between these two rises we have commenced roofing in ground which, although hard is congenial for lead, and which has to-day a rib of ore running through it. We have decided upon this rise because we believe that owing to the flatness of the beds, the productive runs aforeproved in the upper workings have not come down to the lower level, and we hope by following this leader of ore we shall shortly meet with good results. Out of the 112 west we have continued the cross-cut north a distance of 32 yards, through ground so hard and compact as to have cost us 18*l.* per fathom, and have intersected a lode upon which we have made no trial, but of which it would be difficult to speak too highly. The cross-cut has been driven beyond this about 4 yards, through jointy ground, and consequently comparatively easy for driving. In rises Nos. 1 and 2 of the 112 west we have done a considerable amount of work, meeting with lead in more or less paying quantities, but on account of the wretched ventilation operations were suspended. We have further extended the 112 west about 9 yards, but, as in the rises, the men at this point were unable to make much progress owing to the want of ventilation. They were accordingly put to work in the swallow, some 9 yards from the forebreast of the level, with the object of communicating with the workings at Parry, and so securing a thorough ventilation of this part of the mine. At Parry's we have had difficulty after difficulty to contend with, but we hoped that we should have had very little trouble to get at the old workings and commence raising the lead which had been left there. We found, however, the ground crushed and broken in, and when we had at last cleared the levels and strongly secured the roof of the soft ground, the water, which had necessitated a previous retreat from this point, came upon us and flooded the workings. Parts of the ground being of a sandy nature we discovered when the mine had been unwatered that all our labours had been fruitless; the timbers had collapsed and the levels had again filled. Believing that the old sump would be filled with mud and sand, and that it would be a matter of great difficulty and expense to make us absolutely safe from another disaster in the future, it was resolved to sink a new sump on the settled ground some 9 yards west of the old one.

Our subsequent difficulties and the way in which they were overcome recent reports have fully explained, and our only reason for dwelling upon the matter so fully here is that we think it due to the directors and yourselves that a full account should be given of the causes which have so long retarded the realisation of your expectations. The new sump has been sunk to the depth of 16 yards, and levels driven east and west out of it, the latter for a distance of 15 yards including the driving from the roof of the swallow, and by which means the communication between the two workings have been effected. The east level has been driven about 8 yards through good orey ground, and as we are now only 1 ft. from the bottom of the old sump, where the lead was left, good results cannot be longer delayed. Tributers have been at work in the 66 level following a run of ore, and with fair success. They have, however, now been set to drive on the lode (a most promising one) westward, and I shall be greatly disappointed if we cannot report good news from here soon. That the mine has not yet answered either the expectations of the managers or the shareholders is but too true, and no one can deplore that such has been the case more strongly than ourselves, but this does not lessen the high opinion we have formed of the sett or the confidence we maintain of the ultimate success of the undertaking. Taking into account the surface indications of the sett and its situation, surrounded as it is by mines which have proved the most successful in the country, it cannot be doubted by anyone who has the smallest pretension to mining knowledge that there are valuable deposits of lead in this property. With the exercise of a little more patience and perseverance we feel assured the shareholders will meet with that success which they so richly deserve. —R. Prince, A. Francis.

The Chairman, in moving the adoption of the report and accounts, said he did not propose himself to enter much into the prospects of the mine, as he thought that information would come best from their energetic secretary, Mr. Bartlett, who had recently visited the mines, and had been over every part of it, both at surface and underground. It was a great regret to the directors to have to come again to the shareholders to ask them to sanction an increase of capital; however, he was sure the shareholders had good grounds for believing that the concern had been carried on with justice to them and with justice to the mine, and that everything had been done that could be done for it. The mine was very promising as far as could be judged, and it was really worth the while of the shareholders to sanction the proposals now about to be submitted; and, furthermore, the inducement to subscribe was that the mine was being carried on with every prospect of immediate success. In considering the mode of raising money, the directors had come to the conclusion that it was better, instead of issuing debenture or preference shares, to create new capital of 30,000*l.*, and issue the shares at a small price —say, 10s. per share, crediting the remainder of the amount upon them. At first sight this appeared a great sacrifice, but in reality it was not so. Those shareholders who were prepared to come forward would be able to secure an equivalent to their present holding at one-fifth of the cost. Those shares would hold the same position as the original shares. Then there had to be considered the position of those shareholders who were not prepared to come forward, and who, having the means, had lost faith in the mine; those gentlemen would, if the mine succeeded, lose one-half of the capital, as it were. Still, half a loaf was better than no bread, and the directors thought it was placing them in the best possible position that could be done under the circumstances, whilst at the same time it was giving the other shareholders a better chance than they would otherwise have of raising the money which was required. If all the shares were not taken up by the shareholders they would be offered to the public, and on the terms offered they would, no doubt, be taken up. The money was required to pay the just debts and carry on the mine, and the directors believed that was the best means of obtaining it.

Mr. E. J. Bartlett said it would be noticed from the report which he had read that they had extended the 112 east 30 yards during the past 12 months; but this did not include all the work which had been accomplished in the eastern driving during that period. About the middle of last year they came to an apparent change in the underlie, or direction of the north and south lodes, through which they were driving, and a rise was started in the roof of the level to see whether any branch of the Coed-y-fedw lode had crossed the direction of the north and south lode. The result of that operation was to bring them into good ore ground, from which small parcels of ore had been sold during the year. After conducting the level still further another rise was put up in the roof, and here they had met by far the best results that had yet been obtained in the 112 since they began the driving. The rise had gone up 4 or 5 yards, and there had been some splendid lead taken from thence. When he was underground about a fortnight since the new manager (who had not been appointed without due consideration, and who had had considerable mining experience in the district) pointed out a spot in the 112 which, in his opinion, seemed to indicate that a vein had crossed the north and south lode, and that it might prove to be a split or a string from the Coed y fedw, and suggested that instead of driving on the 112 east, which had been a costly operation, they should discontinue that level, and gradually roof up until they got into those productive runs which had been talked of at meeting after meeting, and towards which the hopes and expectations of the shareholders had so long been directed. He (Mr. Bartlett) entirely concurred in this suggestion, and sanctioned the stopping of the level, and this short rise was put up in the roof. It was the intention of the board to continue the rise in the roof until they met all those shallow runs of ore which, for various reasons, had not dipped into the 112, so that for the future they would not hear of the 112 east driving being continued, but rather there would be a searching for the riches which it was believed actually existed. This company, and other companies, had produced very large quantities of ore from the runs that were followed from surface down to the 60 fm. level, and they naturally expected that when they were driving the 112 fm. level east they would intersect all these runs of ore, but the measures instead of continuing the great underlie, had kept flat, and they had driven a long distance, so that the measures that had now been adopted to prove the statements made of the existence of those runs would be thoroughly adequate. The directors had resolved to gradually rise until they met them. He proceeded to call attention to the fact that the water from the Coed-y-fedw lode, tapped by the intersection of what was called a "swallow," in the 112 west, would enable them not only to prosecute upon the old workings of the Coed-y-fedw lode, but would throw an important light upon the course the lode would take in the eastern driving. Having referred in detail to this point, he said that before leaving that part of the mine he would remark that there was nothing which had occurred in the prosecution to show that any point for which the company had started had turned out unproductive, A vast amount of work had been accomplished, and now they would be able to prove those runs, which it was reasonable to expect would get richer as depth was attained. Turning to the western portion, the shareholders were aware that at the last meeting they were driving a cross-cut out of the north level to intersect one or other of three lodes which were proved to exist in the property. This cross-cut was a very formidable operation, but a short time since they intersected the first lode; it was followed in the 66 west, and was very small, and contained a very small proportion of lead ore. The first lode that was intersected in a deeper level contained a width of 4 ft., and was by far the best lode he had ever seen in the mine. He ordered Mr. Pryor not to drive upon it, but to press forward and intersect the next vein. They had advanced for some considerable distance, and but for the defective ventilation they would have intersected the lode long ere this. The first lode looked so well that at their next lode they thought they should have a discovery. He would now say a few words as to why the communication with Parry's lode had not been effected before. There were a great many shareholders who might say that as the 112 west was directly under the point in the level at Parry's they had simply to rise in the roof from one level to the other and effect the communication desired. The real facts of the case, however, were vastly different. Unfortunately, as regarded the present, but fortunately with regard to the future, they had discovered a thorough network of lodes, the majority of them at least promising to be productive. If they had one lode to go upon it would have been very easy for them to communicate with the level by a direct rise and communication, but in order to do this they must go upon the footwall or the underlie of the lode. They took the one, the underlie of which it was supposed by dialling to be Parry's. They rose a considerable distance, but the higher they got so did the lode more rapidly dip away from them, and they could not effect their object. They tried another lode at the No. 2 rise, and they got lead for the whole distance, but the dip of the lode carried them away again. They then intersected a cavity or swallow, and they knew that great discoveries had been made under those circumstances. This swallow had proved a great blessing instead of a trouble, for it had determined as to what lode they were on. They followed the course of this swallow, and its various turnings were best described by likening it to a cork screw. When he was there a fortnight ago they effected a communication, and now that the communication was effected the question would naturally arise what is to be expected now? If he were to talk for an hour he should fail to make them understand all the difficulties which the men had to contend with. One important point effected was that they had secured ventilation throughout the mine so perfect if the men were set bargains they could carry them out satisfactory for the whole term of the contract, which in lead mining extended to four weeks. They had not, until the last fortnight, been able to put the amount of energy into the workings which would enable them to bring to light the riches which they believed this property to possess. Thus, however disappointing the concern might have been to the shareholders, there had as yet been nothing proved in the mine to alter the high opinion that had ever been entertained of its value. The directors furthermore believed that in future they would have no reason to come before the shareholders with excuses as to why they had not been able to do this, and why they had not succeeded in doing that. He would say a word regarding the many lodes that had been intersected in the west, and the 40 tons of lead that the late Mr. Pryor promised the shareholders should have when Parry's was communicated. The operations necessary to be performed at Parry's before they worked upon the lode he was happy to say were completed, so they had to put but six or twelve men on the driving east, and they would get from it, he believed, a quantity of ore which he knew to exist, for he had seen it himself. The next point was what were they going to do with so many lodes as there were on this property? Well, on that point they must take the opinion of the man whom they had appointed, who said they were tending to a junction again at the west, and when they had opened out the ground at Parry's they would continue to drive the main level west, and he expected that they would find those many lodes make into one strong and powerful one, which should produce a magnificent course of ore. Having explained the mining part of the subject, Mr. Bartlett continued: Now, some shareholders may say—"Well, if you are going to make returns and your mine is now properly ventilated, why ask us to find more capital when you can get it from your mine?" Well, gentlemen, I have advanced to the company a large amount of money—a very large amount, considering that I am not a rich man —and I should be glad to have it back. At the same time I should be the last man to press the company for a sixpence. Still, there are creditors who are not so lenient, and the question occurs, which the Chairman has so clearly laid before you, as to which of the several courses open to us to raise this money would be the best. Now, doubling the capital of a company is a very serious thing. At the same time, if we can, among ourselves take up our proportions, we do not suffer. It has been suggested by a large shareholder in the room—Why issue them at 10s.? Why not at 1*l.*? And many an anxious thought this has occasioned to the directors and myself; but, gentlemen, if we did so we know we should have letters from lots of shareholders saying—"I can buy your shares on the market at 15s., and why should I give you 1*l.* a share?" The necessity of adopting another scheme is one which we must regret, but at the same time it has had deep consideration, and if the holder of 10 shares takes 10 shares of the new issue his position is not affected. There is one important fact to which I should allude, and I must apologise for having detained you so long, and it is this—at our last meeting we said the vendor surrendered 300 shares, which would give us 900*l.*, and that that would be sufficient to bring the mine out of its then difficulties and place it in a good position. You will say—"Why have you not fulfilled your promise about those shares?" After the meeting there was some few shareholders who responded to our appeal and sent in their money, but there were others who took days, and weeks, and months; who would neither say that they would consent or that they would not consent, but who left us in a state of uncertainty. Hence the board could not sanction the increase of the force at the mine. They had rather to order the manager to reduce the number of men at work. If the 900*l.* had been placed on the table at the meeting, or within a short time after the directors asked that that the application might be sent in, I safely say that we should not be in the position that we now occupy, and should not have had to meet you with an explanation of the cause of our disappointment. In conclusion he said he appealed with confidence to the shareholders to find the capital, and said it rested with the shareholders, by subscribing for new shares, quickly to bring about a return upon hitherto unproductive capital. (Hear, hear.)

Mr. Bartlett, in reply to an observation by Mr. Bland, said that neither the directors nor himself had received a single sixpence for their services during the past twelve months, and after the money which he himself had advanced he did not feel warranted in increasing the force at the mine. If the shareholders did not take up the shares they must go to the public, and the public were inclined to take them up. His desire, however, was that they should preserve the mine amongst themselves. They did not require the money all at once.

Mr. Cooper did not suppose there was a single shareholder who would let the shares go when they were offered at 10s.

Capt. Gifford seconded the Chairman's resolution, which was put to the meeting, and carried unanimously.

The retiring directors and auditors were then re-elected.

On the motion of the Chairman, seconded by Capt. Gifford, the following resolution was then put, and carried unanimously:—"That the capital of the company be increased by the creation of 10,000 shares of 3*l.* each, to be issued at a discount of 2*l.* 10s., or 10s. per share."

On the motion of Mr. Duke, seconded by Mr. Cooper, a cordial vote of thanks was passed to the Chairman and directors, and the meeting broke up.

GAWTON COPPER MINING COMPANY.

The general meeting of shareholders was held at the company's offices, Austinfriars, on Thursday,

Mr. Edward Hunter in the chair.

Mr. James Hickey (the secretary) read the notice convening the meeting, and the statement of accounts, charging costs to Nov. 28, showing debit balance brought forward from last account, 400*l.* 12s. 9d., and present debit balance, 285*l.* 4s. 9d., was submitted. The balance at bank was 200*l.* 10s. 4d., and the loss on the four months' working was 244*l.* 4s. 11d.

Capt. Rowe then read the subjoined report:—

Jan. 29.—During the past four months our principal tutwork operations have been confined to the development of the south lode at the 105, 95, and 82. At the latter point (82) the cross-cut between the north and south lodes is 17 fms. 4 ft. 7 in., or 15 fms. 3 ft. 2 in. between the flookan lode and the south lode, which is intersected, and cut into 4 ft. 2 in.; so far as seen it is chiefly composed of capel, spar, and mundic, with good stones of ore, altogether of a very masterly appearance, and showing indications of being large, as proved at the levels below. The cross-cut driven between the north and south lodes at the 95, some 15 fms. west of the 82, is 6 fms. 3 ft. 6 in., where the lode is laid open 15 ft. wide; 8 ft. of the south part is the most productive for mundic and ore, being worth 10*l.* per fm., of a very promising appearance, and likely to improve both east and west of the cross-cut. The cross-cut at the 105, between those lodes, is 5 fms. 2 ft. where the south lode was intersected, and proved to be over 12 ft. wide, producing mundic and ore to the value of 25*l.* and 30*l.* per fathom. In the back of this level a rise is put up 12 ft., and a small part of the lode stoped away, proving the character of the lode and the existence of the ore going up, worth 15*l.* per fathom. Also a winze is commenced in the bottom of the same level, and down 7 ft., proving the lode going down to be of the same character and value as in the drivage, worth 25*l.* per fathom. The drivage of the 117 has been resumed on the north lode, in easy ground for progress, which course we purpose to continue with all possible vigour to get in contact and beneath the same run of orey ground as described in the level above, where we calculate the lodes will be very near each other, or in all probability form a junction near this level, where we may reasonably calculate on a more important discovery of ore. For the present development of your property we think it necessary to continue the drivage of the 82 cross-cut through the lode to prove its character and value throughout, and then extend drivages on its course both east and west of cross-cut, and sink a winze on the course of the lode to communicate with the level below for the twofold purpose of ventilating the workings and cutting out the ore ground in proper sections for stoping away with economy. Also resume the drivage at the 95, on the south lode, for the further proof of its character and value both east and west of cross-cut, and at the earliest convenience sink a winze to communicate with the 105 below. At the same time continue the sinking of the winze in the bottom of the 105 to communicate with the 117 with as little delay as possible. Also put up a rise in the back of the 105 to communicate with the proposed winze below the 95. In carrying out this work we shall thoroughly ventilate the workings at all the different levels, and in all probability cut out a great quantity of valuable orey ground, and open up a lasting and profitable mine. Our sampling on Friday last is computed at 108 tons of copper ore and 350 tons of rough arsenical mundic, with 40 tons of selected coppery mundic on the floors.—G. Rowe, G. Rowe, jun.

Mr. McCallan said that according to that report they really appeared to be going to have a change at last.

Capt. Rowe believed that such was the case. They had been looking for some of the improvements mentioned in the report for some time, and they appeared now to have reached them.

The Chairman said there was no doubt Capt. Rowe's report was very encouraging, but the discouraging part of the matter was that the standard for copper ores continued so much against them. If the copper standard would only give them a helping hand they would go on smoothly enough, but as it was the committee, notwithstanding the improvement, considered that in the interest of the company it would be better to go on as they had been doing, and for the next four months at least to keep the cost to the minimum—in fact, to continue to do so until there was an improvement in the standard. Even if the improvement in the mine continued they could not do better than pursue this course, for it was no use raising ore that cost them 20s. which they could sell for 15s. only. The shareholders might rest assured that as soon as they could see a profit they would take advantage of it. The debit balance, as they had seen from the accounts, was 400*l.* 12s. 9d. when they last met, and was now 285*l.* 4s. 9d.; he hoped by the next meeting to see it still further reduced, but still they thought it desirable to make a similar call to the last to keep them in funds. He might mention that the last sampling of 108 tons of ore and 40 tons of mundic was not credited in the present balance-sheet. He concluded by moving the reception and adoption of the report and accounts.——Mr. R. McCallan in seconding the resolution, said he was pleased to hear that they were going to make a call, as he thought it wise and necessary for the welfare of the mine, but from Capt. Rowe's report he hoped it would be the last required.

The Chairman said that they could not conduct the affairs of the mine respectably without a call, and the committee thought the amount should be 2s. With a slight turn in the standard they would be satisfied.——Mr. Drew seconded the resolution.

The reception and adoption of the report and accounts, and the call of 2s. per share were then unanimously agreed to.

Mr. McCallan had much pleasure in proposing the re-election of the committee, and although the arrears of call were by no means large, he thought that something should be done to get them in; he would, therefore, move a resolution that the committee be requested to take proceedings against all shareholders in arrear.——Both resolutions were seconded, and unanimously agreed to.

Mr. McCallan had had the pleasure of belonging to the company for many years, and fully appreciated the exertion which had been made by the committee to bring the mine into a profitable condition; he would, therefore, move that the best thanks of the meeting be given to the Chairman and directors for their services.

The Chairman, on behalf of the committee, would say that they were gratified at any expression of thanks, and especially for the terms in which it had now been proposed. He believed that all was being done that could be done to get them out of the difficulty in which the low price of metal placed them, and he hoped that in a short time they would have the balance on the other side of the account.

A unanimous vote of thanks to Capt. Rowe for the manner in which the mine is conducted was passed and acknowledged, and the proceedings terminated.

WHEAL KITTY MINING COMPANY.

The general meeting of shareholders was held at the company's offices, Austinfriars, on Wednesday,—Mr. W. Clarke in the chair.

Mr. James Hickey (the secretary) read the notice convening the meeting and the minutes of the preceding one, which were confirmed. The statement of accounts showed—balance from previous account, 8*l.* 11s. 2d.; labour cost, 2381*l.* 18s. 10d.; secretary and office expenses, 69*l.* 7s. 7d.; merchants' bills, 1074*l.* 12s. 2d.; dues, 144*l.* 3s. 3d.: together, 3678*l.* 13s. On the other side of the account the receipts were for tin sold, 3171*l.* 12s. 6d.; and for carriage, 38*l.* 17s. 11d.: leaving a debit balance of 468*l.* 2s. 7d. The subjoined report of the agents was also submitted:—

Jan. 28.—Pryor's Lode: In the 154, driving west of shaft, the lode is much more promising than we have had it for the whole length driven, being better defined, with more regular underlie, and producing more tin, and we think will very shortly become much more productive. The 154 east is much the same as when last reported. In the 142, driving west of shaft, the lode is improving, and worth for tin 8*l.* per fathom. In the 142, driving east of shaft, the lode is worth for tin 9*l.* per fathom. In the 100, driving west of shaft, the lode is worth for tin 5*l.* per fathom. In the 94, driving west of shaft, the lode is worth for tin 7*l.* per fathom. In the 65, driving west of shaft, the lode is worth for tin 7*l.* per fathom.—Old Lode: In the 100, driving west of engine shaft, the lode is worth for tin 6*l.* per fathom. The 90 is much the same as when last reported. You will perceive from our returns that the usual quantity of tin is being returned, but at a ruinous low price. You may rely on the strictest economy being observed in order to tide over the depressing times we are passing through.—W. Teague, S. Davey, R. Harris.

The Chairman, in moving the adoption of the report and accounts, said it would be seen from them that the mine itself was looking quite as well as at any previous period, but the low price of tin was much to be deplored. He pointed out the advantages that would have accrued to the company had better prices ruled, but they must hope for the time when they would mend, in which case the mine would repay them for their patience.

The usual resolutions were passed, as was also the vote of thanks to the Chairman, which concluded the meeting.

MONYDD-GORDDU LEAD MINING COMPANY.

An ordinary general meeting was held at the offices, 4, Finsbury-circus, on Friday, Jan. 25,—Mr. F. Thompson in the chair.

The notice convening the meeting and the minutes of the last having been read, and the report and balance-sheet to Dec. 31 last taken as read, the Chairman moved that the directors' report and the balance-sheet to Dec. 31, be, and hereby are received and adopted.

The Chairman said that the reports were so full and satisfactory that he thought it unnecessary for him to say anything more as to the position and prospects of the mine, but he would call upon Mr. Milsted (who has recently returned from thence) to make a few remarks on that head. The proposed issue of 5000*l.* debentures had been carefully considered by the directors, and he believed that it would commend itself to the shareholders as forming a perfectly safe investment with 10 per cent. interest, while at the same time benefiting the property.

Mr. Milsted explained that two very important events had occurred since their last meeting—Firstly the cutting some months ago of a magnificent course of ore in the 24, which he was convinced they would find even still richer at the 36 fm. level, as it is going down rich in the bottom of the 24; and, secondly, the cutting within the last few weeks of a course of ore worth 30*l.* per fathom in the 12 fm. level, thereby clearing up the only mystery about the mine—why when so rich both at surface and adit, and at the 24, it was apparently poor at the 12, which this discovery proves was not the case; the importance of this fact as showing the continuity of the courses of ore will be apparent to everyone; in fact, such reserves of ore are already laid open, and being daily added to, as fully justifies the immediate increase of the crushing and dressing power, which is the chief reason for the proposed issue of debentures, and inasmuch as he and his partner were prepared to take up their proportion, amounting to more than one-third, he hoped that every other shareholder (as he was sure it was their interest to do) would do likewise. He had only to add that they were daily expecting that the cross-cut would reach the north lode, and from its splendid appearance at surface he felt sure that, as in many other instances in that district, they would find good courses of ore therein parallel to the fine discoveries at the intersection of the Champion and south lodes, some 18 or 20 fms. south thereof.

Dr. Gibbon asked if it would not be more economical to drive levels every 15 instead of every 12 fms. as at present?——Mr. Milsted said it depended a great deal on the nature of the lode, as, if bunchy, 15 fm. levels might possibly miss some good deposits of ore, but the directors would consult with the manager on the point, as also as to Dr. Gibbon's other suggestion that the sinking and driving might be done under contract by rock-drilling companies.

Messrs. Ashwell and King-Church were re-elected directors for the ensuing year.

Mr. McCulloch here stated that he had been asked by some shareholders whether there was anything wrong about the mine to cause him to resign his former seat at the board. He wished to say at this, his first opportunity, that his only motive for resigning was that he then expected to go abroad, and could not, therefore, attend meetings, and upon being asked by the Chairman whether he would now rejoin the board he said he should be most happy to do so.

Mr. King-Church proposed a resolution for the issue of 5000*l.* debentures, to carry 10 per cent. interest, and to be exchangeable (at the option of the holders) for shares. In doing so he said that the great object of this debenture issue was that the expenditure on plant, machinery, and exploratory work should (as it ought to be) paid out of capital account, and the profits, which they were actually making at the rate of about 100 per cent. on the breaking and sale of the lead, should be allowed to accumulate towards a dividend. The directors had, after careful consideration, come to the conclusion that in the present state of the markets this was the best method of raising the additional capital, and he could not believe that any shareholder would hesitate to take up, to the extent of one-tenth of his present holding, debentures effectually secured by a first charge over property worth many times their total amount, and carrying not only 10 per cent. interest, but also the option (certain to eventually prove valuable) of exchanging them for shares. His firm had already advanced the mine 1300*l.*, all of which they would take out in debentures, as well as some 300*l.* more to make up their propor-

tion, and he hoped every shareholder would do the same, and he confidently believed the day would come when the shares (and consequently, also, the debentures) would command a handsome premium.

Mr. LARCHIN, in seconding the resolution, said: I would ask the shareholders to support the board, because I think the board have earned some right to make this appeal to them, and to have it suitably responded to. They are not coming before you to ask for money to search the hidden mysteries of the earth. Those have been, to a large extent, unravelled, and they come to ask you for money to take them away. We have had to contend with many difficulties, an intermittent water supply at surface, and an uninterrupted supply below, where it was not wanted. To meet this difficulty the reservoir has been put in hand, and is now nearly completed. Next year we shall not, probably, have these difficulties to contend with, but they have presented obstacles to us which to many mines would have proved insurmountable. Advices arrive from the agent to say that by a certain date a certain quantity of lead will be ready. Unfortunately, the weather says "No." Our water supply falls short, our machinery stops, and the pay comes round with no money to meet it. Messrs. Church, Milsted, and Co. have never hesitated to step forward and find the funds necessary to carry through the operations. Your directors, meanwhile, have put forward no claim for fees. Their journeys to the mine have been frequent, and always at their own expense, so that I think the board, in asking you to help them in a way that renders the help you give perfectly safe—have earned the right to do so, and the shareholders should support them—I was going to say, and I do not know why I should not—unanimously. I have much pleasure in seconding the resolution.

After a short discussion, in the course of which it was arranged that the debentures should terminate in five years, the resolution was put and carried unanimously, and the shareholders present (who, we understand, represented directly abouth three-fifths of the capital, and a good deal more indirectly) one and all expressed their intention of taking up their respective proportions of the debenture issue.

Mr. MCCULLOCH moved a hearty vote of thanks to the Chairman and directors for the manner in which they had conducted the business. The shareholders had little idea how much money the directors had expended, and how much time they had given in the endeavour to make this affair a success.

Mr. MATTHEWS seconded the motion, which was carried, and with the brief response of the Chairman, the meeting was brought to a close.

YORKE PENINSULA MINING COMPANY.

An interim meeting of shareholders was held at the Cannon-street Hotel, yesterday,—Mr. F. P. WARD in the chair.

The circular on the company's affairs, which had been previously sent to the shareholders, was taken as read.

The CHAIRMAN observed that the present meeting had been convened in compliance with a desire expressed at the last annual meeting, that an interim meeting should be held after the lapse of about six months. Although, owing to the greatly depressed condition of the copper market, the company had not yet attained a position which would enable them to take the matter of dividend into consideration, he thought they had reason to congratulate themselves that the mine was bearing all its expenses, notwithstanding it laboured under the disadvantage of not yet having crushing and dressing and rock-boring machinery, which had now come to be indispensable in order to work a mine at a profit. The obstacle that had prevented the directors from supplying these necessary appliances was the want of the necessary capital. The board entertained as strong a confidence as ever in the mine, and he would remind them that the work done upon it had taken it out of the region of speculation. That is to say, they had no longer to cast about to find ore, but simply to lay out their plans well for the economical working of the valuable lodes that had been already proved to exist. At one part alone—on Morphett's lode—there were 800 fathoms of lode ready to be worked, which was estimated to produce 3000 tons of ore. There was also a large body of ore on the Kurilla lode between the 35 and 45, east of the engine-shaft, and the drive to the west on the same lode and level would soon, they expect, be in a body of ore ground that was proved some time ago to exist in the bottom of the 25 fm. level in that part of the mine. Their object had always been to make the company safe by keeping the ground well opened up for the future. Other companies had been stopped by neglect of this precaution. Steady progress had been made in the productiveness of the mine. During the six months ending Nov. 26 last ore had been raised of the estimated value of 7735*l*. From the balance of ore previously in hand, and that raised as aforesaid, there had been sold in the colony 101 tons, producing 945*l*. 2s. 7d.; there were in course of realisation here and afloat 610 tons, estimated value 6600*l*., and there remained on the mine at the above-mentioned date ore of the estimated value of 2506*l*. The average quality of the Kurilla ore was about 19 per cent. for copper. This showed an increase at the rate of about 2000*l*. on the production of the previous year. With copper at so low a price as at present it was not prudent to force the raising of ore. It was better to go on quietly, and to carry on all necessary dead work, so that the mine might be well opened out against the time when copper should have risen in price. Further, the work which they were now doing for the future would facilitate workings in other parts of the mine by drawing away the water. He would now allude to the other important matter mentioned in the circular—the Ravenscliff Mining Company, of which the prospectus was sent to them last year. They had long desired to furnish Captain Anthony with the rock-boring and erushing and jigging machinery, to which he had already alluded, and they had come to the conclusion explained in the report. The directors had made very satisfactory arrangements for the efficient and economical management of both the Duryea and the gold properties, and operations could be commenced as soon as ever the directors could feel that a sufficient number of shares had been subscribed for.

Mr. BROMFIELD stated that nothwithstanding his reluctance generally to take shares in any mining company, he was nevertheless a strong supporter of the new company, and had subscribed for shares in it. What the Kurilla wanted was labour-saving machinery, and from 2000*l*. to 3000*l*. were needed to provide it. He fully expected that whatever they put into the Ravenscliff Company they would more than take out in dividends from the Kurilla Mine. He would remind the meeting that unless something was done with the Duryea this company would lose it, and he thought it far better to sell it to the new company and get something for it at the same time; that by doing so they gave a great impetus to this company in its progress towards dividends. There was only, he understood, a very short time within which the new company must be floated or given up, and he urged the shareholders to send in their applications for shares without delay. He had himself taken shares.

Mr. JOHNSON said he had great confidence in anything that emanated from their directors, and he was quite willing to increase his subscription for shares in the new company.

Mr. RAIT said that he considered the new company one that should be supported, and they had the word of the directors for it, that the best way of raising money to get more machinery for the Kurilla Mine was by disposing of the Duryea property to the new company. He had been informed that all the directors had done the same. He considered that the directors had done quite right in putting the new company once more before them, and it must be decided in a very short time whether they would establish the new company by taking up its shares, or let the chance pass out of their hands. He had great confidence in the value of the gold properties in New Zealand, the vendors of which could not hold them at the disposal of the new company for more than a very few weeks longer.

Mr. J. H. MACKAY said that he should like to see the new company established, and that he was willing to increase his subscription for shares.

The CHAIRMAN having, in replying to various enquiries, stated that if the mine continued to progress as it had done recently (while he must carefully guard himself from making anything of the natute of a promise in the matter), said he believed the time was not far distant when the preference shareholders would be paid their dividend, and that there would be something for the ordinary shares also. Of course, if the new company should not be established all deposits paid application for shares would be returned in full.

The following resolution was then unanimously passed:—"That this meeting being of opinion that the proposal to sell the Duryea property to the Ravenscliffe Mining Company is a very desirable one, both as a means of getting that property turned to account, and of assisting and expediting operations at the Kurilla Mine, and being further of opinion that the Ravenscliffe Mining Company contains in itself the elements of a good and prosperous undertaking, recommends the shareholders of this company to promote the establishment of the Ravenscliff Mining Company by subscribing for shares therein."

Mr. JOHNSON proposed a vote of thanks to the Chairman and directors, and the meeting separated after a list of subscriptions for shares in the Ravenscliffe Mining Company had been offered.

[For remainder of Meetings, see to-day's Supplement.]

WATSON BROTHERS' MINING CIRCULAR.

Ten years ago the weekly information which had previously been published for a great number of years in WATSON BROTHERS' Mining Circular was transferred to the columns of the *Mining Journal*, with the following announcement; which is now reproduced in consequence of the numerous letters and enquiries handed to them of late in reply to one which appeared in the Journal on the Clementina Mine.

The great extension of mining business, the difficulty so often complained of by country shareholders in getting accurate and disinterested information as to the state of Cornish and Foreign Mines, and of the financial and real position of mining companies generally, have induced Messrs. WATSON BROTHERS to make their Circular now published in the *Mining Journal* more extensively known, and to state—

That they issue daily to clients and others who apply for it a Price List (as supplied to most of the London and country papers), giving the closing prices of Mining Shares up to Four o'clock.

They also buy and sell shares for immediate cash or for the usual fornightly settlement in all Mines dealt in on the Mining and Stock Exchanges, at the close market prices of the day, free of all charges for commission. They deal also, on the same terms, in the Public Funds, Railways, Telegraphs, and all other Securities dealt in upon the Stock Exchange.

Having agents in all the mining districts, they are constantly getting mines inspected for their own guidance, and will also obtain special reports of any particular mine for their clients, for the inspecting agent's fee of £2 2s.

In the year 1843, when mining was almost unknown to the general public attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring the success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and sharedealing than there is at present; and from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services and advice to all connected with mines and mining.

Messrs. WATSON BROTHERS are daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

WATSON BROTHERS,
MINEOWNERS, STOCK AND SHARE DEALERS, &c.,
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

D'ERESBY MOUNTAIN.—The secretary has just returned from the mine, and informs us that the wheel and crusher may be erected and at work in a few weeks. The stuff already broken from the Gorse lode by four men only is estimated at nearly 500 tons; what lead it will produce when crushed no one can say, but, as some of it is very rich, we should hope for a good quantity. The lode is of enormous size, chiefly white spar, with ribs and veins of almost solid lead throughout. The agent tells him that in No. 4 level alone there is good lead ground that will take several *years* to work away, and when the crusher is ready more men will be set to break lead. No. 5 adit has been rather difficult to get on with, as some of the ground had fallen in; this has been cleared, and the progress is now easier, and in a short time very important results may be expected. Mr. Parry informs us that during his long connection with mines in Cornwall and elsewhere he never saw such a masterly lode before, and at No. 4 level alone there is a rich mine in itself. Every bit of ground in the neighbourhood, he adds, has been taken up or applied for, and the district will soon be alive with mining.

ROOKHOPE.—From the way our names are mentioned in the extract quoted by Mr. Byron last week those ignorant of the facts might imagine that *we* had *given* explanations respecting this mine, whereas the explanations we published were those we obtained from the office of the company in answer to our own enquiries as shareholders.

CLEMENTINA.—The rise and the winze have been communicated, and will open out stoping ground. The Gorse lode runs through Clementina sett to the north, and will be costeaned for.

At D'ERESBY the No. 3 level is now worth over 1 ton of lead per fathom. The Gorse lode continues worth 3 tons.

SATURDAY, JAN. 26.—There is very little doing in the mining share market, and the following quotations are merely nominal:—Carn Brea, 39 to 41; Dolcoath, 31 to 33; Devon Consols, 3 to 3¼; D'Eresby Mountain, 50 to 60; East Van, 2 to 2⅛; Grogwinion, 4½ to 5; Great Laxey, 21 to 22; Leadhills, 4¼ to 4½; North Laxey, 4s. to 6s.; Parys Mountain, 9s. to 10s.; Penstruthal, 4s. to 5s.; Roman Gravels, 7¾ to 8¼; Rookhope Lead, 17s. to 19s.; South Condurrow, 9 to 9½; Tankerville, 4¼ to 4½; Tincroft, 11 to 12; Van, 27 to 29; West Chiverton, 13½ to 14⅛; Wheal Agar, 3¾ to 4¼; Wheal Grenville, 2¼ to 3; Wheal Peevor, 6 to 6⅛; Eberhardt, 6¾ to 7¼; Richmond, 8¼ to 8¾; Flagstaff, ¾ to 1; Chontales, ⅝ to ¾; New Quebrada, 2⅛ to 2⅜.

MONDAY, JAN. 28.—Market very quiet, and prices are about the same as on Saturday.

TUESDAY, JAN. 29.—Market continues inactive. Great Laxey, Van, and Parys Mountain firmer. Van, 28 to 30; Great Laxey, 21½ to 22½; Parys Mountain, 10s. to 12s. 6d.; D'Eresby Mountain, 50 to 60; Roman Gravels, 7¾ to 8¼; Tankerville, 4¼ to 4½; Grogwinion, 4⅛ to 5; Rookhope, 17s. to 19s.; Leadhills, 4¼ to 4½; Carn Brea, 39 to 41; Dolcoath, 31 to 33; Tincroft, 11 to 12; South Condurrow, 9 to 9½; Eberhardt, 7 to 7¼; Richmond, 8⅛ to 9.

WEDNESDAY, JAN. 30.—Market again very quiet, and prices are about the same as yesterday.

THURSDAY, JAN. 31.—Market inactive, and quotations nominal. D'Eresby, 50 to 60; Grogwinion, 4¼ to 4¾; Rookhope, 17s. to 19s.; Great Laxey, 21½ to 22½; Roman Gravels, 7¾ to 8¼; Tankerville, 4 to 4¼; Van, 28 to 30; Leadhills, 4 to 4¼; Carn Brea, 39 to 41; Dolcoath, 31 to 33; Tincroft, 11 to 12; South Condurrow, 9 to 9½; Agar, 3¾ to 4¼; Grenville, 2½ to 3; Peevor, 6 to 6½; Parys Mountain, 9s. to 11s.; Great Laxey, 4s. to 6s.

FRIDAY, FEB. 1.—Market quiet, and prices almost nominal. Van, 28 to 30; Great Laxey, 21½ to 22½; D'Eresby, 50 to 60; West Chiverton, 13 to 14; Grogwinion, 4 to 4½; Tankerville, 4 to 4¼; West Tolgus, 74 to 76; Parys Mountain, 8s. to 10s.; Rookhope, 17s. to 19s.; Roman Gravels, 7¾ to 8¼; Dolcoath, 31 to 33; Carn Brea, 39 to 41; South Condurrow, 9 to 9½; Richmond, 8¼ to 9¼; Eberhardt, 7 to 7⅛.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

WALTON QUARRY COMPANY (Limited).—Capital 2000*l*., in 10*l*. shares. To acquire a stone quarry at Walton-on-the-Hill, near Liverpool. The subscribers are—Jamss Coaban, Rice-lane, Walton, provision dealer, 8; R. Kelly, Walton, 8; Alfred Cross, Walton, 8; W. Smith, Breeze Hill, Walton, 5; C. Grimshaw, Walton, gentleman, 7; B. Relly, Walton, builder, 5; B. Ascroft, Bootle, mason, 5. This company is registered without Articles.

DEBENTURE BOND MORTGAGE COMPANY (Limited).—Capital 250,000*l*., in 10,000 6 per cent. preference of 10*l*., and 75,000 ordinary shares of 2*l*. each. To apply the system of an average investment trust to any kind of mortgage investment business, also to deal in various securities, &c. The first seven subscribers (who take one share each), preference and ordinary, are—H. Russell Evans, Metropolitan Chambers; E. C. Schulers, St. Swithin's-lane; H. T. Walker, 7, Finch lane; J. W. Atkinson, Metropolitan Chambers; J. D. Shakespeare, J.P., Scientific Club, Saville-row; G. De Wilte, Romford; G. C. Willey, 28, Finsbury-square.

DUDGEON AND COMPANY (Limited).—Capital 20,000*l*., in 5*l*. shares. To acquire the graving dock lately in the possession of the Northumberland Graving Dock Company (Limited), at Millwall, and to carry on business as dry dock proprietors. The subscribers (who take two shares each) are—J. S. Hill, 32, Great St. Helens; John Holman, 23, St. Mary Axe; W. Millbank, Newcastle-on-Tyne; G. Ross, Wimbledon; G. H. Watts, 85, Gracechurch street; A. J. Dudgeon, London street, E.C.; H. L. Dudgeon, London-street, E.C.

LIVERPOOL COMMERCIAL SALE ROOM COMPANY (Limited).—Capital 20,000*l*., in 10*l*. shares.—To establish a sale room in Liverpool. The first seven subscribers are—J. Adams, North John-street, Liverpool, 300; John Mossfyod, North John-street, Liverpool, 167; R. Dart, Victoria-street, Liverpool, 167; W. T. Dart, Victoria Buildings, Liverpool, 250; J. F. Rogers, Victoria Buildings, Liverpool, 250; J. B. Adams, North John-street, Liverpool, 59; Alfred Woodall, North John-street, Liverpool, 500.

LLANDUDNO BRICK, LIME, AND STONE COMPANY (Limited).—Capital 5000*l*., in 10*l*. shares. To quarry for stone, &c., and to carry on the manufacture of bricks and tiles. The subscribers are—Morris Pritchards, Llandudno, builder, 10; R. Conway, Llandudno, plumber, 10; R. Price, Bryn Arfor, Llandudno, gas engineer, 20; R. Williamson, Royal Hotel, Liverpool, 10; T. Jones, Conway, brickmaker, 10; T. R. Eden, Llandudno, grazier, 10; R. Allen, Llandudno, wine merchant; E. H. Williams, Llandudno, ironmonger. This company is registered without articles.

LONDON PROVINCIAL SUPPLY ASSOCIATION (Limited).—Capital 10,000*l*., in 10*l*. shares. To acquire the grocery business of Mr. W. Mackners, of Tottenham-court road. The subscribers are—W. Mackners, 113, Tottenham-court-road, 5; R. Mackners, 40, Angell-road, Brixton, 5; George Mackners, 39, Blackman street, Borough, 5; J. A. Mackness, 103, Tottenham court-road, 1; T. Whitbread, 315, Liverpool-road; J. D. Upton, 85, Lower Marsh, Lambeth.

PHYSICAL SOCIETY OF LONDON.—This company has obtained permission from the Board of Trade to dispense with the word limited after its name although incorporated as a limited company. The subscriber are—G. C. Foster, F.R.S., 12, Hildrop-road, N.; W. G. Adams, M.A., King's College; W. H. Hone, M.A., 10, Dean's Gate, S.W.; E. Atkinson, Portesbury Hill, Canonbury; F. Guthrie, 24, Stanley-crescent, Notting Hill; A. W. Renold, 2, Westcombe Park, Blackheath; A. B. W. Kennedy, Bartholomew road, N.W.

MIDLAND LACE COMPANY (Limited).—Capital 100,000*l*., in 50*l*. shares. To acquire the business of Messrs. R. A. Sylvester and Co., of Nottingham, lace manufacturers, R. H. Dean and Co., Nottingham, lace manufacturers, and the business of ruffle manufacturers, carried on by Hugh Balfour and Co. at Manchester. The subscribers are—W. H. Farmer, Sherwood Rise, Nottingham, 220; J. Sylvester, Nottingham, 200; W. G. Johnson, Nottingham, 100; R. H. Dean, Nottingham, 80; J. Hind, Fletcher Gate, Nottingham, 20; N. G. Symons, 127, Portland-street, Manchester, 50.

WM. MOORE AND GREY (Limited).—Capital 15,000*l*., in 20*l*. shares. To acquire the business of vendors of fire-arms and ammunition, carried on at 43, Old Bond-street. The subscribers are—Thos. T. Lauder, the Uplands, Handsworth, 163; C. F. Henshaw, 90, St. George's square, S.W., 162; Thomas Turner, Sutton Coldfield, 54; J. S. Turner, Birmingham, 54; J. Turner, the younger, Fuber-street, Birmingham, 54; O. Evans, Aston, Warwick, 3; W. Harris, 126, Buckingham Palace-road, 5.

BIRKDALE BREWERY COMPANY (Limited).—Capital 10,000*l*., in 5*l*. shares. To acquire the Victoria Brewery, Rochdale, Lancashire. The subscribers (who take one share each) are—C. Priestly, Southport; John Heyworth, Birkdale; John Ashcroft, Southport; E. Jones, Formby; T. Davis, Southport; W. E. Booth, Southport; C. Kenrick, Southport.

HALIFAX LOAN AND DISCOUNT COMPANY (Limited).—Capital 10,000*l*., in 5*l*. shares. To carry on the usual business of a loan and discount company. The subscribers are—J. Amley, Bedford-street, Halifax, 210; H. Wilson, Halifax, 150; Alfred Win's, Shoggs Wire Mill, Halifax, 70; W. C. Helden, Northgate, Halifax, 81; J. Knowles, Sheffield; B. C. Wilson, Hull, 10; T. Winks, Shogg, Halifax, 10.

PATENT HOMOGENEOUS LEATHER COMPANY (Limited). — Capital 4000*l*., in 10*l*. shares. To deal in carriers' shavings and waste, &c.

NEW STEAM BOILER COATING.

The advantage resulting from the jacketing of steam boilers has frequently been pointed out by engineers connected with mines, and although the actual saving of coal naturally varies according as the boilers are more or less exposed to the inclemency of the weather, there are but few cases in which the economy effected does not soon repay the outlay for the coating. An improved covering for preventing the radiation or transmission of heat has been patented by Mr. CHARLES TOOPE, of New York, which is claimed to possess the advantages of lightness and durability, and to be free from all liability to crack or crumble; it may be handled without damage, and may be applied to the surfaces when they are either hot or cold. The covering is made of layers of wollen rag paper (known also as wollen paper or wollen felt) pasted together until the desired thickness is attained, and the covering, when intended for application to pipes and other cylindrical or tubular objects of moderate diameter, is preferably made in the form of a tube of cylindrical or polygonal form. They take a roll of the wollen paper as it comes from the mill, and place it on a horizontal spindle supported in bearings in a suitable frame. In other bearings in front of, and parallel thereto, a mandrel is mounted corresponding in shape and diameter to the pipe or other object to which the covering is to be applied. The paper is drawn from the roll, and its ends wrapped once or more times round the mandrel until it is sufficiently gripped to be wound thereon when the mandrel is rotated. A scraper or doctor is then adjusted so as to press on the paper to keep it smooth and free from wrinkles, and to scrape off the surplus paste; and a tension device is applied to the roll to regulate the strain on the paper, which should be wound as tightly as possible on the mandrel. A paste trough beneath the mandrel is then raised by a lever or otherwise until the paper on the mandrel is immersed in the paste. The paper is now wound on the mandrel until a thickness of (say) ½ in. to 1 in. is attained, each convolution being united to the previous one by the paste. The web of paper is then cut, and the mandrel turned briskly, and the surplus paste removed. The paste box having been lowered out of the way, the mandrel is removed from its bearings and drawn out of the tube of paper which encircles it. The paper tube is then placed in a drying oven, and when thoroughly dry is first cut in any desired lengths, and then severed longitudinally along one side by a circular saw; and a longitudinal groove or cut is made partially through its thickness at the opposite internal surface, so that the tube may be opened as on a hinge to enable it to be applied on a pipe, &c. The covering is secured in place by uniting the severed edges by means of U-shaped staples, or dogs, or other suitable fastenings.

In making coverings for tanks and other flat surfaces, and for boilers, stills, and other vessels of curved or irregular shape, Mr. Toope employs a flat or curved table, or a former or block of corresponding shape to the vessel for which the covering is intended; and upon this table, former, or block separate layers or sheets of the paper, cut to a suitable shape, are applied in succession, each sheet being coated with paste before the next one is applied, and rubbed with sufficient pressure to take out wrinkles, express the surplus paste, and make it adhere closely. When a sufficient thickness is attained, the covering is placed in the drying oven until thoroughly dry; the edges are then trimmed square, and the sheets cut to shape by a circular saw. In making a covering for a boiler or still, or any triangular form of vessel, the block is generally in the form of a segment only of the entire vessel, the entire covering being made up of a number of segments or pieces jointed together by U-shaped staples with bands of hoop iron or brass bolted around the joints.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—S. Toy, Jan. 30: The cross-cut at the 15 is now driven north towards the lode 7 fms. 3 ft. We are constantly meeting with small veins of barytes spotted with lead. The ground is changeable, and getting dampish, which we expected to meet with before we cut the lode.

BEDFORD UNITED.—R. Goldsworthy, W. Phillips, Jan. 31: Setting Report: To drive the 138 east, by six men, at 12*l.* 10*s.*; the lode is worth 16*l.* per fathom, and looking promising for further improvement. To sink the winze in the bottom of the 127 east, by nine men, at 13*l.* 10*s.*; the lode is worth 10*l.* per fathom. To drive the 115 east, by four men, at 11*l.* per fathom; the lode is 3 ft. wide, producing stones of ore; we expect an early improvement here. Three stopes in the back of the 115 east, at 4*l.* 15*s.*, 4*l.* 15*s.*, and 5*l.* 5*s.* per fathom. Two in the back of the 103 west, at 5*l.* each per fathom. These stopes are worth on an average 9*l.* each per fathom.

BODIDRIS.—H. Hothchkiss, Jan. 29: Our underground work is being proceeded with regularly. No very important change to report on this week, except that in the 60 cross-cut south we are continually meeting with a little lead ore in the rock. The rise in the back of the 45 yard level is also slightly improved for lead ore.

BETWS-Y COED.—H. T. Haley, Jan. 28: The lode in the shaft is looking very promising; it is 24 in. wide, composed of spar, carbonate of lime, a little blende and lead ore to the value of 25 cwts. per fathom. In the 20 the lode will yield 40 cwts. of lead per fathom, a branch having dropped into the lode from the north or hanging wall, which has increased the value of this end. The shallow adit is without change. The tribute pitch is yielding some good ore.

CARON.—John Kitto, Jan. 25: The lode in the 10, driving west of the old engine shaft, has further improved since the date of my last report, and is now about 4 ft. wide, and yielding saving leadstuff throughout, with every prospect of a further improvement. There is no ore in the same level east, but I believe the main part of the lode has been thrown to the north by a cross-course which we have just passed through, and I have directed the driving to be continued more in that direction. We are getting on very well with squaring and timbering the new engine-shaft, and I hope to have the same completed to the adit level by the end of next week. The walls of the store room and the smiths' and carpenters' workshops are nearly completed, and I hope to get the roofs on in a few days, when the old smiths' shop will be turned into a changing house for the miners.

CLEMENTINA.—William Bennetts, Jan. 30: The lode in the 34 end, south of Watson's shaft, is 2 ft. wide, producing saving work, and looks promising for a speedy improvement. In the rise in the back of the 34 the lode is 2 ft. wide, and worth 7 cwts. of lead per fathom. According to measurements this morning we have 3 ft. more to rise to communicate to the winze sunk in the bottom of the 25, which we hope to accomplish this week. When this is done we shall be in a position to stope from each end of the rise, also to drive east on the east and west lode, and also drive north on the north and south lode.

— Jan. 31: I am glad to advise you that we have communicated the rise in the back of the 34, south of Watson's shaft, to the winze sunk in the bottom of the 25, which has well ventilated the 34 fm. level. We shall now resume the driving of the 34 end east.

COMBMARTIN.—T. Harris, J. Comer, Jan. 26: To-day being the monthly pay we set the following bargains:—The 28 to drive west of Harris's shaft on Harris's lode, by four men, at 4*l.* 10*s.* per fathom; the lode is about 4 ft. wide, containing good silver-lead, blende, and white iron—a strong and masterly lode. The 15 to drive east of Harris's shaft, by four men, at 2*l.* 10*s.* per fathom; the lode is about 2½ ft. wide, yielding good stones of sliver-lead—this end is approaching a cross-course, and we expect an improved lode shortly. The adit level cross cut to drive, by four men, at 2*l.* 10*s.* per fathom the month. The end has just touched the hanging-wall of a lode, and so far as seen shows some good gossan, containing spots of lead and blende embedded in a good channel of killas for the production of lead; we think these are very promising features for a productive lode in depth. In looking over the mine, and seeing it is situate in a beautiful channel of killas, and containing so many lodes and cross courses, with numerous intersections, we think there is every probability of the mine eventually becoming a valuable property when properly developed, which can be done cheaply to the depth of nearly 40 fathoms.

DE BROKE.—J. Phillips, Jan. 30: The lode in the 45 east is still strong and productive, opening up stoping ground. The 35 east is greatly improved; some good strings of rich lead ore coming from the north, and apparently leading to a deposit of ore. The other points are without any particular change. The frosty weather is against slime dressing, and snowstorms have delayed work generally, but I am pushing on to sample on Saturday or Monday next.

DERESBY MOUNTAIN.—Wm. Bennetts, Jan. 30: The lode in the end at level No. 3 has very much improved since yesterday morning; present value over 1 ton of lead to the fathom. It is a splendid looking lode.—No. 4: The large Gorse lode is still looking well, worth full 3 tons of lead to the fathom, and a good mixture of blende; the heading part of the lode continues to look well.—No. 5 Level: I am glad to inform you that the men are making better progress in clearing this week, and we hope shortly to get through the worst of this troublesome work.

— Wm. Bennetts, Jan. 31: I am glad to tell you that the Gorse lode at No. 4 level looks well; also that at No. 3, which is worth over 1 ton of lead to the fm. No. 3 level should now be cleared and driven at once, which will be 15 fms. below deeper than No. 3 level.

DENBIGHSHIRE CONSOLIDATED.—A. Francis, R. Prince, Jan. 30: Outcrop of a new lode discovered at surface full of small lumps of lead. In the 112 east rise a leader of lead 3 in. solid.

DERWENT.—J. Morpeth, Jan. 28: We have no change in any of the underground bargains of any importance since the date of the last report.—Middle Vein: The 95, east of Jeffries', continues by the side of the vein, and the 93 west yields spots of ore, though nothing to value. The stopes, &c., over the former yield 30, 15, 11, 13, 20, and 10 cwts. of ore per fathom respectively, and over the latter the respective yield of the workings is 9, 11, 11, and 15 cwts. of ore per fm. The cross cut opposite the shaft at the 95 is as for some time past. The 93, east of Westgarth's, where the boring-machine is at work, is by the side of the vein. The 74, west of shaft, produces 6 cwts. of ore per fathom; vein 1 ft. wide. The stope in the back yields 11 cwts.; vein 2 ft. wide, and promises to improve.—Sun Vein: This vein in the level west from sump, opposite Jeffries' shaft, continues very poor, and is 1 ft. wide. The stope in the back is 3 ft. wide, and produces 11 cwts. of ore per fathom. East from sump the two bargains yield 12 and 22 cwts of ore per fathom respectively; vein 3 ft. wide in both places. The stope on this vein, 433 fathoms east of shaft, is poor. The weather the last five or six days has been wintry, frost most intense, and frequent snowstorms. This and the breakage named in last week's report have greatly interrupted our progress in dressing, &c.

EAST CRAVEN MOOR.—D. Williams, Jan. 31: The Hardgate end vein in the 56, west of shaft, has again improved, being over 4 ft. wide, carrying a branch of lead ore on the hanging-wall. The ground is very favourable here for producing ore in paying quantities. The 42 is being driven west by a full pare of men to get under the new shaft from surface. The vein here is at present nipped, but no doubt it will open out again in a few fathoms further driving. In the cross-cut south in the eastern part of the mine, to cut the new vein, the cross-joint referred to in my last is now 3 ft. wide, filled with gossan, spar, and lead ore, worth 10 cwts. per fathom.

EAST VAN.—W. Williams, Jan. 30: We have driven the 55 cross-cut 9 ft. north from Tempest shaft. In the present end we have cut a few spots of lead, but not worth valuing as yet. No other change to report.

GOGINAN AND LEVEL NEWYDD.—Jan. 30: In the 130, going east of western shaft, the lode is large, and the portion carried contains a mixture of ore, producing saving work. We are daily expecting an improvement at this point. The lode in the winze sinking below the 120, in advance of the 130, is worth 12 cwts. of ore per fathom. In the pitch over the 130 the lode is yielding ½ ton of ore per fathom. In the pitch over the 120 fm. level, west of the western shaft, the lode yields from 10 to 12 cwts. of ore per fathom. The pitch over same level, 35 fathoms west of Bryn Pica shaft, has been let to four men, at 160*s.* per ton. The other points throughout the mines are without any change of moment since last report. On Friday last we had a heavy fall of snow, which has impeded our surface operations, but we are glad to say that it quickly disappeared, and all things are being pushed onward with the utmost dispatch.

GREAT DYLIFFE.—Evan Evans, Jan. 30: There is no change in any of our workings on the Dyliffe lode since last week. The stopes over the 95 east, and the 132 east and west, are much the same. The new lode in the drivings in the bottom of the winze looks much better than it did last week. We have a strong lode in the end to-day, with a very nice string of lead ore in it, but not so good as we have seen it; but from the indications in the end we expect something better in a few days. At the other winze, on the same lode, we have a strong string of blende and some stones of lead ore occasionally, and the ground is more settled than it was. In the cross-cut in the 105, east of Bradford shaft, we cut into the lode yesterday evening, and it looks very fair, and is worth from 15 cwts. to 1 ton per fm. The lode in places splits into two branches, and a level was driven some 12 years ago on the north branch, which was unproductive, and our present cross cut is from the end of that driving to intersect the lode, which was from 4 to 5 fms. to the south of the old driving. If this will continue good to the end of the ore ground in this level it will be very important, because it is untouched in all the levels below this. We shall be able next week to say more about this.

HINGSTON DOWN CONSOLS.—T. Richards, Jan. 31: Bailey's Shaft: In the 172 east the lode continues of very great promise, and will produce 20*l.* worth of ore per fathom. The 160, west of Nicholl's winze, is improving, and is now worth 5*l.* per fathom, and promising further improvement. The sampling on Friday last is computed 161 tons.

HOLMBUSH.—F. Bennett, Jan. 31: The engine-shaft is in fork 8 fms. below the 90; the shaftmen are now engaged putting in timber to secure the same. The 60 is set to drive west of the engine shaft, by six men, at 7*l.* 10*s.* per fathom; the lode is about 1 ft. wide, composed of mundic, a little copper ore, and quartz, and letting out a little water. The 60 to drive south on the lead lode, by six men, at 8*l.* per fathom; the lode has a very promising appearance. A cross cut to drive north at the 60, east of Bartlett's shaft, by four men, at 8*l.* 10*s.* per fathom; we expect during the present month to intersect the part of the lode that is standing to the north. We expect to finish cutting down Bartlett's shaft below the 60 in about six weeks from this time; there are six men set to do this. No. 1 stope in the back of the 80, west of Miller's shaft, by four men, is worth 20*l.* per fathom. No. 2 stope in the back of the 80, west of Miller's shaft, by four men, is worth 22*l.* per fathom. No. 3 stope in the back of the 80, by four men, is worth 18*l.* per fm. No. 4 stope in the back of the 80, west of Miller's shaft, by two men, is worth 22*l.* per fathom. No. 1 stope in the back of the 60, east of Miller's shaft, by two men, is worth 24*l.* per fathom. No. 2 stope in the back of the 60, east of Miller's shaft, by two men, is worth 20*l.* per fathom. A stope in the back of the 50, west of Miller's shaft, by four men, is worth 30*l.* per fathom. We have commenced to clear the 40 east on the Flap Jack lode to enable us to drive the end. We hope to drop the lift again next week, which will fork the water to the 100. The masons are making fair progress with the loading for the new water-wheel. All the machinery is in good working order.

KINGSTON CONSOLS.—James Chynoweth, Jan. 31: The lode at the 40, west of engine-shaft, is very large (from 8 to 10 ft. wide), producing beautiful stones of lead, intermixed with copper, with large streams of water coming from the north side—a very promising lode. Good progress has been made driving the 30 west; lode 2 ft. wide, producing a small portion of lead and blende, and beautiful stones of copper ore. The stopes in the back of the 30 are considerably fallen off in value. The stopes in the back of the 18 are worth their former value for lead and blende. At all the other points there is no change since last reported on.

KIT HILL TUNNEL.—H. Bennett, Jan. 31: South End: The lode west of the tunnel is 20 in. wide, composed of carbonate of iron and a little silver, and presents a very promising appearance—in fact, I have never seen a kindlier lode; there is no other alteration at this point.—North End: We have not yet cut anything at this point, but the ground is everything that could be desired, being full of small branches of iron, and letting out a large quantity of water.

LADYWELL.—Arthur Waters, Jan. 30: The 16 south is going forward in a kindly lode, in which there is a branch of lead 2 in. wide. The adit south of new shaft is going forward in a wide soft lode yielding stones of lead ore. The winze behind the adit end going down in front of the 16 end is worth 1 ton of lead ore per fathom. The 23 above the adit makes good progress. The new shaft below this level in a few fathoms further sinking will be holed to the old stopes, and greater progress towards the adit will be made.

LLAN-GAN.—W. Jackson Walton, Jan. 30: Old Engine-shaft: In the driving west there are several strong branches of lead, producing good work for the dressing-floors; these branches lately have been gradually improving in size and quality as the driving has proceeded, and from their appearance and bearing I expect to find them meet in a short distance further on; this work is let on tribute. No. 2 stope remains much the same (a very good one for lead ore), as also the stope in the old workings.—Richard's Lode: The stope has turned out well since the tributers first began; they have two productive branches running east with stringers of more or less richness.—Wright's Shaft: The driving and stoping east of shaft has been let to four men on tribute, and turns out better than they expected. I am now forwarding a parcel of lead to market.

LLANIDLOES (Lead).—John Owen, Jan. 25: The lode in the 84 has gradually improved since the date of my last report, and so has the rise which we have been putting up above the same, in order to communicate with the winze sinking below the 72 for ventilation; but until this communication is effected we cannot commence stoping the roof of the 84 for want of sufficient air. The stope above the 72 is looking better, and yielding more ore than it has for some time past, but there is nothing new in any other part of the mine. We have sampled 15 tons of lead ore and 5 tons of blende, both for sale on the 31st instant.

LOVELL (THE).—J. Prisk, E. Kempthorne, Jan. 31: The 40 is being driven east of Hownam shaft in a lode 12 ft. wide, and is giving signs of becoming very rich. All the other places much the same as usual. After our setting on Saturday next a full report shall be forwarded.

MARKE VALLEY.—William George, James Stenlake, Jan. 31: Since our last report the rise in the back of the 60 has been communicated with the 50, and the men now employed in stoping from the same, where the lode will yield 2 tons of ore per fathom. The lode in the 40 west, now 1 ft. wide, is yielding good stones of copper ore. In the 30, 20, and 10 west, each being driven by four men, good progress is being made, but without any material alteration to notice in the lode. Our stopes and pitches throughout the mine are yielding their usual quantity of ore.

MELINDUR MINE.—John Kitto, Jan. 25: We have still a nice branch of ore in the 14, east of engine-shaft, and are getting some good lead stuff therefrom. And I expect to intersect the same branch in about a week or ten days in the 26 below, but I have nothing new to report to you from any other part of the mine; as soon, however, as we have ascertained the character of the lode in the 26 I will further advise you.

MELLANEAR.—John Gilbert, Jan. 30; The lode in the 40 west of the rise, west of the skip-shaft, is 2 ft. wide, and worth 1 ton of copper ore per fathom. The lode in the rise in the back of the 50, west of the skip shaft, is 2 ft. wide, and worth 1 ton of ore per fathom. The lode in the stope in the back of the 67, east and west of No. 1 rise, is worth 4½ tons of ore per fathom. The lode in the stope in the bottom of this level west of cross-course is worth 7 tons of ore per fathom.—Gundry's Shaft: The sinking of this shaft is going on very satisfactorily; the ground is a little harder, but so far we have been making very good progress. The lode in the stope in the bottom of the 90, east of shaft, is still worth 3 tons of ore per fathom. The lode in the 80, west of shaft, is producing stones of copper ore. The lode in the winze in the bottom of this level east of cross-cut is worth 4 tons of ore per fathom. The lode in the stope in the back of this level is worth 5 tons of ore per fathom. The lode in the 70, west of shaft, is worth 2 tons of ore per fathom. The lode in the 60, west of shaft, is worth 4 tons per fathom. The lode in the winze in the bottom of this level is worth 2½ tons per fathom. The lode in the 50, east of No. 1 rise, is worth 5 tons of ore per fathom. The rise in the 50, west of No. 2 rise, is also worth 5 tons of ore per fathom. There is no alteration in any other part of the mine since our last report.

MORFA DU.—T. Mitchell, Jan. 28: We have let the sinking of the engine-shaft to nine men, for the month, at 18*l.* per fathom, the men to fill and land their own stuff. Everything is now in good order and convenient for carrying on the work, and I hope good progress will be made in the sinking.

NORTH CORNWALL.—T. Doidge, Jan. 30: There is no change to notice since my last. I have stopped the men that were driving on the caunter lode in the north adit and put them to strip down the side of the level to find if possible the point where one of the north and south lode crosses the caunter lode.

NORTH LAXEY.—John Sowden, Jan. 29: In the 46 end driving south the lode is 4 ft. wide, and the character of it has very much improved, being less rock and more spar, blende, and good stones of lead; also a strong flow of water is issuing from the end. In the north end the lode is 1½ ft. wide, composed of spar, intermixed with lead. In the 84 end the lode is 2 ft. wide, composed of spar and lead, but not sufficient to value. I am pleased to see that the country rock is getting more favourable for driving. The 60 stope is worth 1 ton of lead per fathom. There is a slide in this stope dipping south, and increasing in size as we go downwards. We have stoped the ground through the slide, and can see the stope standing 7 fms. high, and worth 1 ton of lead per fathom. No doubt this slide has influenced the lode in the 73, and to prove it we have commenced to cross-cut in the hanging or western side.

NORTH TRESKERBY.—J. Nancarrow, A. Nancarrow, Jan. 29: The water is forked, and the shaft cleared below the 12; we are now driving at this level east and west, and as soon as we get a little standing ground the operations below will be resumed. There is a very good looking lode in the east end 1½ ft. wide, yielding fine stones of ore. In the west end the lode is much larger, and contains some rich ore. From the appearance of the lode in these ends and in the level above they are likely to improve very shortly. We shall now commence sinking a winze below the adit to come down on the western end. The lode in the adit level west is 3 ft. wide, yielding ore to save, and presents a better appearance than it has for some time. The lode in the shallow level is 2 ft. wide, looking very well, and yields 1 ton of ore per fathom. There are three pitches being worked at the adit, and one at the shallow level. We sell on Thursday 31 tons of copper ore.

PARYS MOUNTAIN.—T. Mitchell, Jan. 28: The 90 cross-cut south, by six men, for the month, at 13*l.* 10*s.* per fathom; the ground here is again hard, after passing through the cross joints referred to a few days ago. The 90, west of the cross-cut, in the branch, by two men, the month, at 8*l.* per fathom; the ground here consists of lodey stuff all the width of the end, from which we are saving about 1 ton of ore in a fathom; the ground, on the whole, is of a kindly nature. A stope in the 65, east of Gwen's shaft, by three men, at 6*l.* per fathom; the lode is worth 6 tons of No. 2 ore per fathom. We have let 11 tribute pitches, to 22 men, at the usual prices. We are pushing on with cleaning up the precipitation as fast as possible, in order to get the precipitate ready for the next sampling.

PATELEY BRIDGE.—C. Williams, Jan. 31: The Rake vein in the 30 east is improving rapidly, and we have now a very fine vein in the end composed of carbonate of lead, gossan, quartz, and lead ore, worth of the latter 1 ton per fm.; the ground also is becoming much softer and easy to work. I am looking forward for a great improvement here at once. The stope in the back over this level is producing 1 ton of lead ore per fathom. The stope in rise in the back of ditto is worth 1 ton of lead ore per fathom. The Rake vein in the 30 west is not looking quite so well, but we have a fine and profitable course of ore before us, and I am pressing this point forward with all energy. Fielding's vein in the 20 north west is 3 ft. wide, and worth 22 cwts. of lead ore per fathom. The Metal pitch in the 20 east is worth 14 cwts. of lead ore per fathom. The Metal bargain in the bed under the 20 is worth 15 cwts. of lead ore per fathom. The Metal pitch in Lumb vein is not looking quite so well, worth 6 cwts. of lead ore per fathom. All machinery in good repair, and working well. Monthly report next week.

PENSTRUTHAL.—W. Polkinghorne, Jan. 28: In the Highburrow shaft we have blasted a sinking hole to-day, and I am very pleased to say we have discovered the granite, and in about a week from this time I think we shall be entirely through the elvan, when I shall be able to say more about the nature and character of the lode, which I hope will be very satisfactory; so far as I can see at present the granite is white and soft, and of a very kindly nature. In the 72 fm. level, driving east of Highburrow shaft, the lode is daily increasing in size, and is now 6 ft. wide, producing copper ore and mundic. In the 72, driving west of Highburrow shaft, the lode is without change since last reported on. In the cross-cut, driving south at the 46, on Saturday last we met with another lode 2 ft. wide, producing a little copper ore and tin; during the last 10 fathoms driving we have intersected three separate lodes, all producing copper ore and tin, and seeing the ground is so highly mineralised the continuing of this cross-cut is a very good speculation, and we shall certainly meet with something good when we reach the copper lode, north of Hodge's lode, that we raised so much copper ore on in the back of the adit level. We shall sell on Saturday next about 3 tons of tin.

PRINCE OF WALES.—John Andrews, Jan. 30: The lode in the deep adit end, west of Vigor's shaft, is 1 ft. wide, composed of quartz, capel, mundic, and carbonate of iron, with spots of lead intermixed. The lode in the shallow adit end west is 18 in. wide, composed chiefly of quartz and capel.

RED ROCK.—John Kitto, Jan. 25: The lode in the 72, west of the engine-shaft, is improving as we advance, but the ground is so very wet and porous that our progress is comparatively slow. I believe, however, that the richest part of the lode is still standing whole on the north side of the level, but this we shall prove shortly by cross-cutting in that direction. The winze sinking below the 60, and a little in advance of the 72 end, is yielding very good ore, but the north part of the lode is still sanding here as well, it being too wide to carry the whole in the sinking, and besides, it will strip down much easier and cheaper after a communication has been effected with the (72) level above. The lode in the 60, driving east of shaft, is not quite so rich as it has been, but is still producing very good ore, and a more kindly looking lode can scarcely be found in any mine, however rich, and I think we may safely reckon upon having a further continuation of profitable ore ground. There is no change in the 10, driving east of the new shaft, but the lode is still yielding both lead and blende ores, and looks likely to further improve. The tribute pitches throughout the mine are looking better than usual, and we shall sample another parcel of 40 tons about the middle of February.

ROMAN GRAVELS.—Arthur Waters, Jan. 31. The 106, north of flat-rod shaft, is worth 2¼ tons of lead ore per fathom. South of this shaft the lode is 6 ft wide, and worth 1 ton per fathom. We have 62 fms. to drive the said end (south) to new engine-shaft. No change in the 95, north of flat rod shaft, the lode being still split into three divisions. The 95, south of new engine-shaft, is in a wide lode, which is still underlaying the wrong way. This end is now 30 fms. 4 ft. 6 in. from the shaft, and ought soon to be into the ore ground seen in the level above. The 80, south of the said shaft, is driven 89 fms. 2 ft.; lode worth 4½ tons per fathom. The 65, south of this shaft, is driven 131 fms. 3 ft.; lode worth 4 tons per fm. The stopes and other points throughout the mine are yielding ore as for some time past.

ST. HARMON.—John Kitto, Jan. 26: I have nothing whatever to report to you since my last. We have not yet reached the north wall of the lode in the eastern end of the 67, but still continue to find small branches of solid lead, and I am strongly of opinion that when these several branches gather up and form one regular lode, as they most assuredly will do further east, we shall meet with a good bunch of ore. The ground in the south cross-cut has been harder and more compact of late than usual, and I am of opinion that we are getting near one of the south lodes. The machinery is all in good order and working well.

SAINT PATRICK.—William Francis, Jan. 30: We have a marked improvement in the 120 yard cross-cut north, having just broken into soft ground of clay, with a little ore mixed. I hope to report a further favourable change next week. The 60 yard cross-cut in the chert measures is without any alteration to notice, but the progress is steady and satisfactory, and the bearing holds still of the most favourable kind.

SOUTH CONDURROW.—Wm. Rich, Wm. Williams, H. Abraham, Jan. 30: The penthouse is fixed and plat cut at the Plantation shaft. The sinking below the 40 is resumed by nine men. We have soft ground in the 30 cross-cut, north of engine-shaft. The 40 end, west of engine-shaft, is unproductive. The 40 end east is worth 10*l.* per fathom. The 50 east is worth 8*l.* per fathom. The 50 west is worth 40*l.* per fathom. The rise in back of the 60 west is worth 28*l.* per fathom. The 70 end west is worth 10*l.* per fathom. The rise in back of the 70 is worth 10*l.* per fathom. The 80 end east is worth 12*l.* per fm. The 93 end east is worth 10*l.* per fathom. The 93 west is worth 7*l.* per fathom. The stopes and pitches are yielding good quantities of tin.

SOUTH CWMYSTWITH.—John Kitto, Jan. 26: There has been no change of importance in any of the drivings during the past month, but the stopes in the various levels have continued to open out well, and are yielding a splendid lot of leadstuff. We have communicated the winze from the intermediate to the No. 2 level, which will greatly facilitate the further development of this (No. 2) lode, and will enable us to bring the whole of our crestuff from all the levels above straight to surface through this lower level, from which we have already laid a tramroad direct to the dressing-floors. We have completed the water-course and have set the new dressing machinery to work, and the dressing of ore has been commenced. We have, however, had a great deal of trouble with the headgear, which was twice carried away by the heavy floods before it could be finished, but it stood a tremendous flood on Monday last without showing the least sign of giving way, and I now hope and believe that we shall have no further trouble with it. We have a large quantity of rich leadstuff at surface ready for dressing, and should everything now go on well, in about a fortnight we shall be able to sample a good parcel of ore; but among these mountains at this season of the year it is utterly impossible to form anything like a correct estimate of the amount of surface works to be executed within in a given time.

SOUTH DARREN.—H. James, A. Gundry, Jan. 31: The shaftmen have cut down the shaft to the proper size, and are now making fair progress in sinking. The lode in bottom of the 90 continues as good as ever. No alteration in any of the stopes since last report. Frost has set in rather severe, but up to this time has not caused any delay in dressing, which is going on well.

SOUTH MOLTON CONSOLS.—J. Harris, Jan. 25: We have put two men to-day to drive the 22 north in a lode about 3 ft. wide, containing good stones of silver-lead—saving work. The lode has a very promising appearance, and I expect an early improvement. We also placed six men to stope the north end of the winze below the 12 fm, level 2 fms. in depth, where we have a leader of lead about 15 in. wide, and worth fully 3 tons per fathom—a very fine lode. The lode in the 12 south is without change, but the ground is improved for driving. We hope to have a parcel of good silver-lead ore shortly for sale as we shall now commence to dress vigorously.

SOUTH MOLTON CONSOLS.—Z. James, Jan. 31: In the 12 the lode is improving; it varies from 20 in. to 2 ft. wide, yielding from 3 to 4 tons of lead ore per fathom. We have six men working on this ground, at 5*l.* 10*s.* per fathom. We are dressing as fast as we possibly can, and I think we shall be able in a few days to get about a good parcel of ore.

SOUTH TOLCARNE.—Wm. Rich, Wm. Hambly, Jan. 30: The lode in the 24 end west carries spots of copper. There is nothing new to report on at the flat-rod shaft sinking below the 24. The lode at the eastern boundary shaft carries a little tin.

TANKERVILLE.—A. Waters, Jan. 28: Watson's shaft is now 6 fms. below the 192, and the ground as for some time past. The 192 west is 12½ fms. from the from the shaft, and the lode in the present end 5 to 6 ft. wide; worth 2 tons per fathom, and improving. The stope behind this end is worth 2½ tons per fathom. The 192 east is also driven about 12½ fms., and the lode in the end 4 ft. wide; worth 2 tons per fathom. This end is now within 3½ fms. of holing to the end coming west from Hooton's winze. The 192, west of the said winze, is in a lode 4 to 5 ft. wide, and worth 2 tons per fathom. We have driven through a good lode here for 5 fms. in length. The 192, east of winze, is driven 10 ft., and the lode in the present end is 2½ ft. wide; worth 25 cwts. per fathom. The two stopes in the bottom of the 180, west of shaftmen's winze (four men in each), are worth together 4 tons per fathom. The two stopes in the said level west of cavity winze (four men in each), are worth together 3½ tons per fathom. One stope (four men) east of said winze is worth 2 tons per fathom. The 180, west of junction west of shaft, is in a lode 1 ft. wide, and worth ¾ ton per fathom. This lode is now making against the face or bed of the country, but whether it will cut through the face and open out to a wider lode I cannot yet say. It looks like doing so. The stope in the back of this end west of the junction (two men) is worth 1½ ton per fathom. We are cross-cutting north to the side lodes from the 180 west end. The 120 west is going forward as trial point in search of a new run of ore. The stope in the back of this level west of winze on south lode (four men) is worth 1 ton per fathom. The stope west of the above (four men) is worth 1 ton per fathom. The 92 east on old lode is very wet; the lode is large, and yielding good saving stuff for lead and blende. We have eight tribute pitches, by 16 men, at prices varying from 5*l.* 10*s.* to 6*l.* per ton. We have delivered 50 tons and 19 tons towards No. 3 parcel, and have full loads in the bin to go away to-morrow.

— Jan. 31: The 192, west of Watson's shaft, is worth 3 tons per fathom. All the othes points are yielding ore as per my valuations given in my report to the directors at the board meeting yesterday.

TEMPLE.—Jan. 30: We are pushing on as fast as possible with No. 3 level the ground is, however, hard, presenting all the indications favourable. We shall, no doubt, find lead in the lower level as soon as we pass through the hard ground and reach the point where the spar bands come close together. Other points as last reported. The weather has at last changed for the better.

TREBEIGH CONSOLS.—J. Gifford, Jan. 28: I have to-day taken the men from the 45 end east, and put them to drive a cross-cut south of the engine-shaft at the 45 to intersect the branches or lode that produced good work for both lead and blende ores about the 30; set 4 fathoms stent, to six men, at 5*l.* 10*s.* per fm., or to be stopped when the agents think proper. The 45 west to drive by six men, at 4*l.* 10*s.* per fathom, stent 4 fathoms, or be stopped when the agent thinks proper; about 5 fathoms behind the end a small branch crossed the end, which disordered the branch or lode that we are driving on, but in the present end it appears to be opening out again, with spots of lead and blende interspersed, and letting out more water. The above we believe to be the same as crossed the shaft at the 30, and is 20 fathoms west of shaft.

TYN-Y-FRON.—E. Jones, Jan. 29: We are continuing the cross-cut south of the eastern level, to cut the south lode. There is no change to mention in the ground in the cross-cut forebreast. We are now in 3 fms., and according to the dialling, have upwards of 1 fm. more before we expect to cut the lode.

WEST CRAVEN MOOR.—D. Williams, Jan. 31: Blackhill Adit Level: The vein in the end of this level has during the week rather nipped, but I am pleased to say is opening out again most satisfactorily, being fully 5 ft. wide, carrying good branches and patches of lead ore of fine quality.—New Blackhill Shaft: This shaft is in regular course of sinking by a full complement of hands, and is now down 5 fms. below adit, and will be sunk as quick as possible to get under the rich ore ground going down in the soles of adit level for 20 fms. in length. No. 2 stopes in the back of level by two men; vein 4 ft. wide, composed of spar and gossan, and intermixed throughout with branches of lead ore, worth 30 cwts. per fathom. No. 3 stope in back of level, by four men; vein 5 ft. wide, worth for lead ore 2 tons per fathom. We have on surface dressed and in course of dressing about 30 tons of ore, which owing to the severe weather we are unable to clean at present.

WEST GODOLPHIN.—John Pope, Jan. 26: Monthly Report: Caunter Lode: The 70, sinking at Wilson's engine-shaft, by 16 men; lode 1 ft. wide, worth 10*l.* per fathom; distance worked, 6 fms. 4 ft. 6 in., producing tin. The 70, driving north, by eight men; the lode is 6 ft. wide, worth 20*l.* per fathom for tin; a fine looking lode, and letting out a large stream of water.—Caunter: The 70, driving south, by one man and one boy; lode 2 ft. wide, low priced tinstuff; distance worked, 6 fms. 5 ft. 6 in. The 60, driving north, by two men; the lode is small; distance worked, 14 fms. 3 ft.—Wilson's: The 60, driving west, by two men; the lode is 2 ft. wide, worth 4*l.* per fm.; distance worked, 65 fms. 3 ft.; producing tin. The 60 west, stoping in the bottom, by 15 men; lode 9 ft. wide, worth 20*l.* per fathom; producing tin and copper. A stope in bottom of the 60 fm. level west, by nine men; the lode is 9 ft. wide, worth 20*l.* per fathom, producing tin and copper. A stope in the back of the 60 west, by four men; lode is 5 ft. wide, worth 10*l.* per fathom, producing tin. A stope in back of the 60 west by four men; lode 2 ft. 6 in. wide, worth 8*l.* per fathom, producing tin. A stope in the bottom of the 60 east by 15 men; the lode is 9 ft. wide, worth 20*l.* per fathom, producing tin. A stope in the back of the 50 west, by four men; lode 5 ft. wide, worth 8*l.* per fathom; producing tin and copper. A stope in the bottom of the 50 west by six men; the lode is 9 ft. wide, worth 10*l.* per fathom, producing tin and copper. A stope in bottom of the 50 west, by six men; the lode is 9 ft. wide, worth 10*l.* per fathom for tin and copper. A stope in bottom of 50 west, by four men; the lode is 9 ft. wide, worth 10*l.* per fathom for tin. A stope in bottom of the 50 west, by four men; the lode is 6 ft. wide, worth 7*l.* per fathom, producing tin.—Pink: The 50, driving west, by four men; the lode is 1 ft. wide; producing low-price tinstuff. The 60, driving west by one man and one boy; the lode is 6 in. wide, producing low-price tinstuff. I am pleased to say that Wilson's lode where we have cut through it at the 70 is a much better lode than where we cut through at the 60. I have to-day ordered the men to open east and west on the course of the lode, and as soon as they have driven a few feet I shall have some more of the north side taken down to see if the whole of the lode is cut through. It is letting out a very large stream of water, which we think will soon drain the 60. We have at surface about 120*l.* worth of copper ores dressed and in way of dressing. We sold on Thursday 7 tons 15 cwts. 1 qr. 16 lbs. of tin at 36*l.* per ton, and calculate to sell about 8½ tons on Monday next.—P.S. You can calculate on our cost being less next month, and, judging from present appearances, our tin sale more.

John Pope, Jan. 30: Wilson's lode in the 70, also in the stopes in the 60, is looking very well, quite equal in value to my last report. The lode in the 70 is letting out a large stream of water, which is draining the stopes in the 60, which I am hoping will soon be dry, then we shall be able to work that ground to much better advantage. The other places are just as last reported.

WEST PATELEY BRIDGE.—D. Williams, Jan. 31: No. 2 Shaft: The 20 east and west of shaft are of the same value as reported in my last. The south vein is not looking quite so well to-day, being at present 1 ft. wide, worth 8 cwts. of ore per fathom. The stope in back of the 20 west of shaft is worth 1 ton of lead ore per fathom. We have a large quantity of orestuff underground here, and only waiting for the engine to commencence drawing.—No. 1 Shaft: Craven Cross shaft is down 29 fms. from surface. The vein in the 56 end is 4 ft. wide, and worth for lead ore 16 cwts. per fathom; we are also preparing to sink two winzes upon the vein below this level. On surface we shall commence drawing from the No. 2 shaft this week. I hope to have the corrugated iron building delivered and fixed next week. We have carted 30 bings of clean ore to the mill, and the remainder will be carted as soon as possible. We have not been able to grate and dress for several days, as the ground is covered with frost and snow.

WEST ROSKEAR.—The caunter lode in the 12 driving west is improving, and we shall be dissapointed if it does not soon result in a good course of copper ore. The end driving west on the engine lode is much the same as reported last week.

WEST TANKERVILLE.—A. Waters, Jan. 31: The 86, south of boundary shaft, is driven 10 fms. 3 ft. 6 in.; lode in present end worth 1 ton of lead ore per fathom. The new stope in back of this level, north of winze (which is 2 fms. behind the end), is let to four men, at 4*l.* per fathom; worth 1 ton per fathom. The new stope south of winze, by four men, at 4*l.* 10*s.* per fathom; also worth 1 ton per fathom. The 75, south of shaft, is driven 45 fms.; lode worth ½ ton per fm.; we expect an improvement here shortly. The two stopes in back of this level, north of winze, are worth together 1½ ton per fathom. The two stopes south of the winze are also worth together 1¼ ton per fathom. The two stopes in the back of the 63 are worth together 1½ ton per fathom.

WEST WHEAL TOLGUS.—Jan. 30: There is no alteration in the ground in Taylor's shaft to notice; it continues hard. The lode in the 145 end, west of Taylor's shaft, is getting larger, and yielding about 3½ tons of ore per fathom. The end is now under the eastern end of the winze below the 135. We consider that a part of the lode is still south of the end, as only a few feet above it (in the bottom part of the winze) the lode is 8 ft. wide. The lode in the winze under the 145 still contines its size (8 ft.), and is yielding 9 tons of ore per fathom; we calculate on communicating it to the 145 in the course of next week. The lode in the 135 end west is holding on very well; it is harder than it was, but yielding 8 tons of ore per fathom. The rise has been holed in the back of the 125 since our last report, and the men have resumed the driving of the 125. No lode taken down since we last reported. We shall set No. 6 winze to sink below the 135, west of shaft, on Friday next; at present a pare of men are employed in cutting ground for winze brace, &c. There are a pare of men employed in stoping the lode in the side of the 185, between No. 5 winze and the end; it is good orey ground, and plenty of it standing. We shall be able to say more about it in our setting report. Richards's shaftmen are getting on better than they have been. We hope to connect the 95 pole to-morrow; after that we shall get on fast with the remainder of the work.

WEST WYE VALLEY.—John Kitto, Jan. 26: We have made very good progress in the sinking of Brooke's shaft during the past month, and should the ground continue as favourable as at present, we shall have it sufficiently deep and be ready to drive out east and west under our best run of ore ground at a new (the 52) level in six weeks from this date. The only new feature in the mine since the date of my last report is a nice branch of ore discovered a day or two ago in the 40 cross-cut south, and about halfway between the two shafts. This is almost immediately underneath one of the bunches of ore that we passed through in driving the 26, and is important in itself, inasmuch as it shows that it continues to hold down. We have not yet had time to drive either east or west of cross-cut on its course, but we shall be able to see more of it in a few days, when I will further advise you. We have commenced a new stope in the back of the 40, east of Brooke's shaft, which is looking well, and yielding splendid leadstuff; and should it continue to hold np we can get large monthly returns from this place alone as soon as the weather moderates; but as it is at present we can do but little either towards drawing stuff or dressing ore, as we have even more than we can do to keep the pumps going and the mine clear of water, so as to enable the miners to continue working underground; but this I hope will shortly rigat itself. The new dressing machinery, when it is going, does its work beautifully.

WHEAL CREBOR.—John Andrews, Jan. 28: The following was our setting on Saturday:—To drive the 120 end east, by four men, at 8*l*. 10s. per fathom; the lode is 5 ft. wide, worth 15*l*. per fathom. No. 1 stope, in back of the 120, by six men, at 4*l*. 5s. per fathom; the lode is 5 ft. wide, worth 10*l*. per fathom. No. 2 stope, in back of the same level, by six men, at 3*l*. 10s. per fathom; the lode is 6 ft. wide, worth 15*l*. per fathom. To drive the 108 east, by two men, at 7*l*. per fathom; the lode in the end is small and poor. To drive the 72 east, by two men, at 5*l*. per fathom; the lode is 4 ft. wide, composed chiefly of quartz and capel. To drive the 48 east, by two men, at 7*l*. 10s. per fathom; the lode is large, but unproductive. To sink the new shaft below surface, by nine men, at 12*l*. per fathom.

WHEAL GRENVILLE.—T. Hodge, Jan. 29: Setting Report: Western Shaft: The 150 to drive east, by eight men, at 12*l*. per fathom, worth for tin 7*l*. per fm. The stope just behind the said end is set to four men, at 7*l*. per fathom, worth for tin 8*l*. per fathom. No. 1 stope in the back of the 150 east, to four men, at 4s. 3d. per ton, worth 6*l*. per fathom. No. 2 stope in the back of the 150 east, to eight men, at 5s. 3d. per ton, worth 7*l*. per fathom. The 140 east end is worth 5*l*. 10s. per fathom; set to two men, at 6*l*. 10s. per fathom. The 140 west end is worth 6*l*. per fathom. The 130 west end is worth 6*l*. per fathom, and likely to improve; set to four men, at 7*l*. 10s. per fathom. Four tribute pitches in the back of the 130 are set to sixteen men, at an average tribute of 8s. 9d. in 1*l*.—North Shaft: The 140 east end is set to six men, at 9*l*. per fathom, worth 6*l*. per fathom. A pitch in the back of the said level, to three men, at 11s. in 1*l*. Four pitches are working in the back of the 130, by fourteen men, at an average tribute of 11s. in 1*l*. We have 12 fms. of water in the bottom of this part of the mine; as soon as drained we shall at once commence to remove the old pitwork and fix the new. We have only 40 fms. more to fix, which can be done quickly when the old work is removed. The balance-bob at surface is in its place, the walls of the boiler are up, and the three boilers are connected; everything connected with the engine will be ready in time for our work below. All other surface work is going on in a satisfactory manner.

WHEAL MARY HUTCHINGS.—H. Miners, Jan. 30: Since my report of the 16th inst. we have almost completed the cutting of the ground for the tramway, and shall begin laying down the metals next week. The furnace is also progressing well, and I shall let out the fires from the kilns to-morrow to prepare for the masons making their connections with the hot flues, &c. The lode is still opening out well. There is not the least doubt that as soon as we get into full work again with both kilns and furnace, together with the cheap mode of transit from the mine to the works, our make of arsenic will be much greater, and the mine will again do well.

WHEAL NEWTON.—H. Bennett, Jan. 31: We shall finish cutting the plat in the 44, at the engine-shaft, during this week, when we shall fix penthouse, and commence to sink below that point. We hope to hole the rise in the back of the 44, east of the engine-shaft, to the 40, west of Cook's, within a week or fortnight; we shall then fix a lift in the 50, at Cook's shaft, so as to commence driving the 50, east and west of the same. The adit end west, on the Well lode, has improved; the lode is composed of flookan, carbonate of iron, and good spots of silver. All the other points of operation remain much the same as when last reported on.

WHEAL UNY.—W. Rich, M. Rogers, J. Rich, Jan. 28: The lode in the bottom of Hind's shaft shows signs of improvement, and carries good stones of tin. The 160 end east is unproductive. The lode in the 160 west is worth 12*l*. per fathom. The 150 west is looking well, and is worth 12*l*. per fathom. The 150 east is worth 6*l*. per fathom. The 140 east is worth 9*l*. per fathom. The rise in the 60 west is worth 7*l*. per fathom.

WYE VALLEY.—John Kitto, Jan. 25: We have commenced with the new pumping-gear for Tippett's shaft, and will have the line of rods completed, pumps fixed, and the sinking resumed with as little delay as possible. This shaft, I need scarcely remind you, will go down through the very heart of the run of ore ground discovered some months ago in the deep adit level. The 22 east is now being driven through a very pretty lode; it is not yet rich in ore, but its component parts are such as to warrant the belief that a further speedy improvement is inevitable. The winze sinking below this level is in good orey ground, and I feel certain that the next deeper level, which is now being driven up towards this point from the engine-shaft, will discover the counterpart of the rich bunch of ore which we had in and about the 10 fm. level above. There has been no change of importance in the 46, either east or west of the engine-shaft, but the latter is seldom without ore, and the lode has a kindly appearance. We have sampled 25 tons of lead ore and 40 tons of blende, both for sale on the 31st inst.

FOREIGN MINES.

RICHMOND CONSOLIDATED.—Telegram from the mine at Eureka, Nevada: Week's run, $90,000, from 1150 tons of ore; week's produce of refinery, $60,000. Mine looking very well; reserves largely increased between fourth and Liszette levels.

— R. Rickard, Jan. 9: Since my last no work has been done in the end of the 200 level drift; we have been cutting out ground behind the end and stoping. The stope above this level is looking very well, and turning out ore of high grade. Drifting in the 400 level has been resumed, at present it is without ore. The stope above this level is without material change since last reported on; we are now sinking a winze on the western end of the ore body from the intermediate level to connect with a cross-cut being drifted on the 400 level for a pass or shute. The 500 cross-cut is still without ore; we have struck a fissure about 6 in. wide in the limestone, the course of which is in the direction of the ore in the 400; it is looking very promising. The 600 on quartzite is still without ore; the contract is closed. The winze below the 900, on fissure, has not made much progress in sinking during the past week; we have struck some water, but not sufficient to prevent sinking; if the water increases we shall be obliged to get some mechanical power to raise it, so as to be able to sink a depth of 200 ft. before drifting. The furnaces are doing well; last week's returns were the largest by $20,000 ever produced, and we bid fair for another good output this week. The average quantity of ore and flue-dust smelted per furnace per 24 hours for the past week was a fraction over 55 tons.

OREGON HYDRAULIC (Gold).—Telegram from the superintendent, F. Ennis: Washing Reed and Thoss claims. Ditches all right.

WESTERN ANDES.—The agent has reported by the mail just arrived a profit of over 360*l*. for the month of November, but he still complains of a deficient supply of water and the want of miners.

TOLIMA.—The Frias returns for November show a profit of 62*l*. 3s. 11¾d. The October returns show 46 fms. 1 ft. 6 in. of ground expended, of which 19 fms. 3 ft. 7 in. were unproductive: leaving 26 fms. 3 ft. 11 in. of productive ground. The agent, in explanation of the heavy cost of this month, states it to be due to exceptional incidental charges, especially those for the haulage and reduction of timber, incurred in October but charged to this month. From observations made it is my opinion that the ground in the Alto Gold Mine is sufficiently rich in pay gold to make good profits so soon as a sufficient quantity of water can be laid on. A staff of men have been told off to proceed to the ditch, and commence the preliminary clearing of the jungle, preparatory to levelling and surveying upon the extension of the ditch.

MINERAL HILL.—Jan. 5: Queen Tunnel: The present end is harder than usual. We still meet with spots of spar and quartz, which favours the idea of our being in the western ore channel, of which the Champion, Troy, and Star Mines form a part. The cross-cut west of the tunnel is in mineralised ground, but they are not far enough advanced to say anything about the ground. In the Queen Chamber we have not done much during the past week on account of the unavoidable absence of the men for a few days. The winze in the Troy is going down with fair dispatch. We are following a seam which is from 1 in. to 4 in. wide, and which dips to the north east. The dip of the vein proper is east, but there is a peculiarity about the ore bodies in the Troy and Star mines. The shoot or chimney has a north-east dip, which may be seen in both mines. The ore in the extreme south of the Star was found much higher than in the north end, and in the north end of the Troy the ore was found much lower than in the south end, and we are sinking as it were on the tail end of the ore body of the Troy and Star mines, which are one, and we have plenty of room for ore to make in, being 400 ft. from the shale on the north-east. On the western stope we have cleared away a pile of waste, and are now almost ready to drive a shallow tunnel for prospecting.

— Jan. 12: Queen Tunnel: There is no change to report. The men are making fair progress in driving. In the cross-cut west of tunnel we cut a large vugh containing spar and quartz, which we are following. The ground is comparatively easy for driving, and looks as if it might carry mineral. The winze in the Troy Mine is down about 8 ft.; the seam in which we are sinking still holds out, varying in width. At one or two places we can see chloride. We have been thrown back at the western stope by the western heap caving on us, but we hope soon to be in working order again. In the Star Mine (Queen Chamber) we are still breaking ore, but not in great quantities.

MALPASO.—W. S. Welton, Dec. 20: Run No. 41, from Nov. 18 to Dec. 19: The clean-up after this run, during which washing was carried on for 451½ hours, with an average head of water of 500 in., produced from the upper sluice and from wheeling gravel into the sluice 338 ozs. of amalgam, valued at $2271·60 (450*l*.) The general quality of the gravel continues the same as during last run; the poor gravel in the bottom, however, appears to be cutting out, and I anticipate an improvement in the results before long. Considerable time was lost on account of heavy rains and the bad condition of our lower sluice causing the rocks to come out. One-third more dirt might have been run off if the lower sluice had not been in such a rotten state that it is impossible to keep it in good shape or grade. Owing to this a number of men have to be employed to keep it clear, and no dirt can be run during the clearing of the sluice, although the water is not turned off, and the time is counted as hours run.—Ditch Extension: This work continues to go on as fast as our means will allow, and Hitchens estimates that at the present rate of expenditure the ditch may be got round to the old bulkhead by about the end of February.—New Opening: The bottom of this continues full of large boulders that have to be blasted, but we have now less tailings to contend with, and the work is consequently less difficult than before. Many more men could be put on if our means would allow it, and then this work could be pushed on rapidly.

MALABAR.—G. B. O'Reilly, Dec. 18: Our monitors have been thoroughly repaired, and by to-morrow all will be in full operation. One has been at work for the past week, but we cannot do much with one stream. Owing to the many interruptions which have taken place I have considered it very advisable to continue washing until the middle of January, by that period I hope to have in 600 or 700 hours in the near ground we are now trying, and I venture the more on this step as I fully anticipate that our clean-up, if made at that date, will give sufficient to cover my two last drafts (420*l*. together). If we were to clean-up now at the present date we should get a miserable result, as hitherto we have run in but little bottom, and have worked hard in getting grade, which will now become available.

ANTIOQUIA (Gold).—The directors have advices from their agent dated December 12, accompanied by a remittance of gold valued at 114*l*., the produce of the mines and of gold purchased at the mines for the month ending November 24. The following are the accounts for November: 72 tons produced 141½ ozs. of gold, average 11 2-5ths dwts., value 11*l*. Cost at the mines at Medellin and in London, 326*l*. 12s. 1d., showing a loss of 212*l*. 12s. 1d. In addition to the above cost the sum of 140*l*. has been paid in connection with the rock-drill and appliances. The reports from the mines are very encouraging.

FRONTINO AND BOLIVIA (Gold).—The directors have advices from their agent dated Dec. 12, accompanied by a remittance of gold valued at 1850*l*., the produce of the mines and of gold purchased at the mines for the month ending Nov. 20 last. The following are the accounts for November, 1877:—617 tons of ore produced 477 ozs. of gold; average, 15 dwts.; gold bought, 313 ozs.; together 790 ozs., value 1850*l*. Cost at the mines, 883*l*. 15s. 5d.; gold bought, 663*l*. 10s. 5d.; cost at Medellin and in London, 162*l*. 8s. 6d.; total cost, 1709*l*. 14s. 4d., showing a profit of 140*l*. 5s. 8d. In addition to the monthly cost of 883*l*. 15s. 5d., the sum of 421*l*. 5s. 2d. has been spent on capital account. The mines are progressing satisfactorily.

PROVIDENCIA AND NEW ROSARIO.—M. V. Cumins, Dec. 28: Owing to the Christmas holidays the quantity of ore extracted during the fortnight has diminished slightly, amounting in all to 139 cargas (about 20 tons) of white rough ore, worth about 7*l*. 7s. per ton. The whole of this ore has been obtained from San Juan and San Miguel. The ore both from San Juan and San Miguel is still of a low class—7 mares per monton. The only advantage that the ore possesses is in being very docile for reduction, and as with fair weather it yields its silver in 12 to 15 days, when that of a higher ley has generally required 20 or 21, and sometimes 25 days, the disadvantage in the quality on the one hand is compensated for to a certain extent in the cost on the other. In San Miguel winze there is no important change, the size of the lode and class of ore continuing the same. The winze has now been sunk about 2½ varas, and at about 6 varas we shall commence to stope the ends. In San Miguel north level the changes have been constant and rapid without being very good. The lode is very hard for driving, and the men are unable to drive an end of 2 varas much more than 33 in. a week. Owing to the holidays they will certainly not drive more than 33 in., which will place the end within ½ vara of the Palma shaft. As we have no wall on the eastern side of the end, we cannot tell what amount of lode there may be on that side; and as the western underlayers have now separated on the western side, it is more probable that they will make ore now, and ought to be proved. Therefore, after driving the end for another week I shall extend cross-cuts east and west, as with so much lode we might without knowing it be driving on the poorest part.—Hacienda: Mr. Ivey has washed his first torta, and has now enough pella to obtain about 240 marcs of silver (38*l*.) The second and third tortas are in course of incorporation.

UNITED MEXICAN.—Mr. Edward Hay, Guanaxuato, Dec. 24: Adit of San Cayetano, Mines of San Antonio, and San Cayetano de la Ovejera, &c.: There is no change in the frente of Los Angeles. In the cross cut of Los Angeles we have traversed the two lodes, and worked a little to the south of the Cuerpo del Alto, following a seam of ore-looking stuff, of which I have sent some stones to be assayed. The Cuerpo del Alto measures 1·84 metres in breadth, and that work is now stopped, unless the assay should encourage us to carry it on at a later period. The bottom of the shaft of San Cayetano de la Ovejera is free of water, but on account of the rubbish that has fallen down while we were timbering the upper part of the shaft close to the mouth, the clear depth of it was on last Saturday 35·60 metres. As soon as the whim is put up we intend taking out the rubbish from the shaft in order to discover the first "despacho" (platform) that ought to exist a little below 40 metres. There is no change in the frente of San Ignacio (continuation of the adit). Very soon we shall begin the cross-cut to the north to communicate with San Juan.

BENSBERG.—C. Craze, Jan. 28: Having had to put in new valve piece and repair condenser to exhaust pipe of engine, some delay has occurred in sinking the shaft, but I am glad to say we have resumed this work, and the lode is producing very good stones of lead. The lode in the 22, west of shaft, is producing a little lead ore, but not enough to value. We have commenced to drive south behind this end, so as to meet with the south wall, and ascertain if there is a better part standing in that direction; there is a little lead in the ground being driven through here, but not of any commercial value. The cross-cut in the 22 east is in lode matter, and we purpose continuing this drivage until we meet the north wall, or a part of the lode. We have commenced to sink on the lode in the 14, east of shaft, where we had some good ore; the lode here carries a good regular lead wall, and is producing a little lead, with pretty much pyrites. Since the engine has been repaired it has been working well, but the water at present is stronger than it has been, owing to so much rain and snow; it takes the engine from 14 to 15 strokes per minute to keep the shaft drained. This makes against our speed in sinking; however, we shall continue to put forth every effort to get the shaft down for the next level as soon as possible. The pneumatic stamp has arrived from England, and we are preparing the foundation for it, which we could not commence sooner through the delay in obtaining the necessary stone.

LUSITANIAN.—Jan. 22: Palhal—Levels on Basto's Lode: The lode in the 200, east of Taylor's, is worth 3 tons of ore per fathom. The lode in the 200, west of Taylor's, is 3 ft. wide, composed of quartz, containing a little copper ore.—Stopes on Basto's Lode: Above the 200, east of Taylor's, the lode is worth 2½ tons per fathom. Below the 200, east of Taylor's, the lode is worth 1 ton per fathom. Below the 190, west of No. 109 winze, the lode is worth 3 tons per fathom. Below the 190, west of No. 109 winze, the lode is worth 2 tons per fathom. Above the 190, west of No. 109 winze, the lode is worth ¾ ton per fathom. Above the 170, west of No. 101 winze, the lode is wooth ½ ton per fathom. Below the adit, east of Pinto's shaft, the lode is worth ½ ton per fathom, with good cobalt in it. Above the 190, west of Taylor's, the lode is worth 1¼ ton per fathom. Above the 190, west of No. 100 winze, the lode is worth ½ ton per fathom. Below the 180, west of No. 107 winze, the lode is worth ¾ ton per fathom. Above the 28, east of No. 17 winze, the lode is worth ¾ ton per fathom, containing nickel. Above the 190, west of Taylor's, the lode is worth 1 ton per fathom. Above the 190, east of No. 100 winze, the lode is worth 1 ton per fathom. Above the 90, west of No. 103 winze, the lode is worth ¾ ton per fathom, with good cobalt in it. Below the 180, west of No. 107 winze, the lode is worth ½ ton per fathom.—Carvalhal: The lode in the north deep adit level, west of the slide, on north lode, maintains its regular walls, but is composed of country, with a little quartz. We have not yet found the lode to the south of the flookan branches in the top adit level south, on Valley lode.

ALAMILLOS.—Jan. 23: In the 40, west of San Felipe shaft, there is a strong lode, producing a little lead. The lode in the 20, west of San Felipe shaft, has again become productive, and valued at 1 ton per fathom. In the 25, west of Abercrombie's, the lode has a better appearance, and yielding ½ ton per fathom. The lode in the 40, west of Abercrombie's, does not contain lead enough to value. In the 40, east of San Enreque's, the lode is regular and well defined; yielding ½ ton per fathom. In the 100, east of Taylor's, the cross-course has been intersected, and we hope to have a better lode shortly. The lode in the 100, west of Taylor's, is large and open, producing good lumps of ore; valued at 2 tons per fathom. In the 85, west of San Adriano's, the lode is of no value. The lode which the 60, east of San Victor's, has intersected east of the cross course is letting out water. In the 70, east of San Victor's, there is a strong lode, producing stones of ore. The lode in the 70, west of San Victor's, does not contain any lead. In the 60, west of San Victor's, the lode has improved in size and value; it is now worth ½ ton per fathom. In the 30, east of San Victor's air-shaft, a good piece of lode has been opened out during the past fortnight, yielding 1½ ton per fathom. The lode in the 30, west of San Victor's air-shaft, has a very promising appearance; worth 1½ ton per fathom. The 40, south of San Carlos, is being kept on very regularly. In the 30, east of San Jose, the lode has not been intersected below the slide. The lode in the 40, east of Judd's, has fallen off a little in value, but at present worth ¾ ton per fathom. In the 60, east of Judd's, the lode is producing good stones of ore; it is valued at ½ ton per fathom. The lode in the 70, east of Judd's, presents a much better appearance, and is now yielding 1½ ton per fm. In the 50, east of Judd's cross cut, the lode is of no value. In Placido's winze, sinking below the 50, the lode is small and poor. Leon's winze below the 40 is holed to the 50; it is worth 1 ton per fathom. In Lozano's winze below the 60 the lode is producing a little lead ore. The lode in Fermin's winze below the 50 became poor a few days ago.

FORTUNA.—Jan. 23: Canada Incosa: The lode in the 120, west of O'Shea's engine-shaft, has slightly fallen off in value, and the ground is harder, worth ½ ton per fathom. The 110, east of Judd's, is yielding very good stones of lead ore, valued at ¾ ton per fathom. The lode in the 30, east of San Carlos, has been intersected; it is large, and contains good spots of lead ore. In the 40, west of Abercrombie's, the lode continues small, and the ground hard. The lode in the 50, west of Abercrombie's, is compact, and very regular, and composed of quartz and lead ore, valued at ¾ ton per fathom. In the 50, east of Abererombie's, the lode is small, containing spots of ore, but not enough to value. The lode in the 60, west of San Pedro, is at present poor, but good ore ground is shortly expected to be met with. In the 70, west of San Pedro, an improvement has taken place, the lode is yielding good lumps of lead ore, worth ¾ ton per fathom. The lode in the 80, west of San Pedro, is large and strong, composed of quartz and lead ore, producing 1 ton per fathom. The 80, east of San Pedro, is similar to the last-named level, but the lode does not contain so much ore—¾ ton per fathom. The lode in the 70, east of San Pedro, is a fine-looking lode, and the ground moderately easy, yielding 1 ton per fathom. In the 120, east of O'Shea's, there is scarcely any lode to trace in this end. The lode in the 90, west of Kennedy's, is very large and easy. From the ore seen in the level above the 100, west of Lownde's, is approaching good ore ground. The lode in the 100, east of Lownde's, is improved, and yielding good spots of ore. The lode in the 90, east of Caro's, is very compact, and opening good tribute ground, worth 1½ ton per fathom. In the 80, east of St. Tomas, there has nothing of value been met with east of the cross-course. Abercrombie's shaft, sinking below the 50, has been communicated (by borer hole) to the 60. Cristina's winze below the 90 has been holed to the 100, worth ½ ton per fathom. The lode in Paco's winze, below the 40, is composed of quartz and lead ore, ground hard, valued at ½ ton per fathom.

Los Salidos: In the 130, west of Buenos Amigos engine shaft, there is a string of lead ore in the lode, but not enough to value. The lode in the 120, west of Buenos Amigos is regular, but has slightly fallen off in value. In the 130, east of Morris's, the lode continues large, and yields some good lead ore, worth ¾ ton per fathom. The 120, east of Cox's, is opening a very fine run of ore ground, yielding 2 tons of ore per fathom. In the 110, east of San Miguel's, the lode has greatly improved in the past few days, being now worth 1½ ton per fathom. The 25, west of Swaffield's, is continued south on the cross-course. The lode in the 85, west of Swaffield's, is larger, and yielding more lead ore than for some time past; valued at ½ ton per fathom. In the 65, west of Palgrave's, there is a fine-looking lode, which will give good tribute ground, producing 1½ ton per fathom. The lode in the 65, east of Palgrave's, is small and unproductive, and the ground hard. In the 35, east of Palgrave's, the lode is large and open, and yields splendid rocks of lead ore; it is easy for driving through, producing 2 tons per fathom. In Morris's engine-shaft, below the 130, the men are working well, and good progress is being made. The lode in Negro's winze has slightly fallen off in value in the past few days, but at present worth 1 ton per fathom.

LANESTOSA.—Jan. 23: La Cruz shaft from surface sinking is now progressing favourably. The lode in the bottom is partially worked away by the ancients, but it shows a rib of ore on the footwall yielding 1 ton of zinc ore per fathom. The shaft winze below adit is going down in calcareous spar, with a little flookan. Ventilation winze below adit is much the same as the last described. La Cruz adit north contains broken patches of low-class calamine, worth 1 ton per fathom. The 50 metre level south is in dark shale, with a small branch of blende, valued at 1 ton per fathom.

LINARES.—Jan. 23: In the 120, east of San Tomas engine-shaft, the lode has declined in value. The lode in the 100, east of Warne's, is large and strong, and yielding 1 ton per fathom. In the 100, west of Warne's, the lode is quite unproductive. The lode in the 120, west of Peill's, is compact and regular, consisting of carbonate of lime and stones of ore, worth 1 ton per fathom. In the 105, west of Peill's, the lode has greatly fallen off in value during the past fortnight, but still worth 1 ton per fathom. The lode in the 90, west of Peill's, is improving in size and value, yielding 1 ton per fathom. In the 120, east of Peill's, there is a regular and well defined lode, worth 1 ton per fathom. From the 105, east of Peill's, the men are cross cutting north to get under San Francisco shaft. The lode in the 90, east of San Francisco, is small, consisting of quartz and stones of ore. The San Tomas engine-shaft, below the 120, will shortly reach the required depth for the 135 fm. level. The ground in Warne's engine-shaft, below the 100, is harder for sinking. The San Francisco shaft, below the 90, is suspended for the present owing to an increase of water.—Quintentos Mine: In the 100, west of Taylor's engine-shaft, the men are driving south to prove whether there is any part of the lode in that direction. The 90, west of Taylor's, has passed through the main cross-course and intersected the lode on the western side of it. In the 80, west of Taylor's, the ground is easier, but there is no improvement in the lode. The lode in the 100, east of Taylor's, is very small, and of no value. The 90, east of Taylor's, is improving. In the 80, east of Addis's, there is a large sparry lode without ore. The lode in the 80, west of San Carlos, is open and easy, and yielding ½ ton per fathom. In the 80, east of San Carlos, the lode is large and strong, containing a few spots of ore, but nothing to value. The lode in the 65, east of Judd's, is small and poor. In Laborde's winze, below the 65, the lode is improving a little. The lode in Caros winze, below the 90, is kindly, with a good branch of ore, worth 1½ ton per fathom.

ECHOES FROM THE MINING MARKET.

Our readers must be somewhat tired of hearing from week to week that "there is no change in the mining market," but, so far as prices are concerned, that is still the actual state of affairs, and at the risk of iteration we must again affirm it. We can, however, add the somewhat gratifying fact that, although no actual change has taken place in the quotations of the leading lead shares, they show no signs of further weakness; on the contrary, quotations are for the most part firm, and in some cases shares have become perceptibly scarcer. Lead, we are glad to notice, has taken (apparently) a turn for the better. May the slight improvement be the forerunner of a substantial rise. In the course of a visit to Wales during the present week we found a far more hopeful tone amongst mine managers as to the price of the metal. Whatever amount of distress there may be amongst the South Wales miners, there appears to be plenty of demand for good lead miners in the northern part of the Principality, whilst in the D'Eresby Mountain district, owing to the recent capital discoveries, there is an actual scarcity of good men, and wages have slightly advanced in consequence.

The D'Eresby Mountain district bids fair to become a very busy mining centre, and we were glad to find that what must now be called the leading mine—D'Eresby Mountain—was looking at its very best. The Gorse lode has increased in value within the last few days, and instead of being worth 3 tons of lead per fm. the present valuation should be nearer 5 tons, besides the blende. The clearing of No. 5 adit is progressing rapidly, and it is hoped that very shortly the Gorse lode will be cut in it. There is a good course of ore in No. 3 adit, and all other points look well. Some day the rich Hafna lode will also be cut, but by the time that is reached we expect to see the present price more than doubled. In the Gorse lode is only cut rich in No. 5 adit we do not see anything to prevent an immediate rise to 100*l*., for even with the present discoveries the mine could make excellent monthly sales of lead when the dressing floors have been completed.

Those shareholders who attended the Port Phillip meeting at the Cannon-street Hotel, on Thursday, found themselves in rather an awkward predicament, owing to an attempted meeting in a neighbouring room of the admirers of the Czar. A turbulent anti-Russian crowd took possession of the hotel entrances and staircases, and a section, thinking perhaps that the shareholders who had quietly met to pass a satisfactory report and balance sheet of their affairs were Russians in disguise, proceeded to break into the room In the attempt to prevent the entrance of the crowd one shareholder barred the door with a hot poker, but the obstacle, although it burned the hands of some of the besiegers, proved no effectual barrier, and the mob soon surged into the apartment and proceeded to demolish the furniture and smash the fittings. At one time matters looked rather serious, but luckily a side door enabled the shareholders and officials to beat a retreat, the latter minus their books and papers. The large space before the hotel was completely filled with an excited crowd, which for nearly an hour amused itself with cheering a Turkish fez cap suspended by an enthusiastic Turcophil on his walking stick, whilst on the steps of the railway station an M.P., who could scarcely keep his feet, harangued a surging yet sympathetic mob, which yelled, sang, and groaned until its lungs were thoroughly exhausted.

Mellanear Mine has come into prominence owing to the success that has attended its working. The first dividend of 2s. per share was declared a few days ago, and the price is quoted 2¾ to 3, at which business can easily be done. The mine is managed by Messrs. Taylor and Son, and produces copper.

JAMES H. CROFTS.

THE WEEK.

SATURDAY, JAN. 26.—The markets were again extremely buoyant. Last night in the House Russian, 1873, closed 80¾ to 80¾, but they were quoted 81 late in the street. At the beginning this morning they were 82, and ultimately left off at 83. Egyptian Unified closed at 32, and the Preference at 55. In railways the bulls of Brighton, A, and Dover, A, were especially active; the first was pushed up to 120¼ and the other to 119¼. Chatham Preference closed at 82, Caledonian at 120, and Great Western at 97, being in each case nearly 2*l*. above the price at one time prevailing yesterday morning. There was some influential buying of Grand Trunk securities. The First Preference advanced 2*l*., to 49; the Second 1*l*., to 29; and the Third 5/8, to 16.

MONDAY.—Grand Trunks again rose on good buying. The First Preference closed at 50, the Second at 30½, and the Third at 16½. The ordinary stock was not so much affected, closing 8¼ to 8¾. Russian, 1873, closed at 84, being an important rise from the 79½ ruling at one time on Friday. The Comptoir D'Escompte notify that they are now able to give the Definitive Bonds of the Egyptian Unified Debt, with coupons attached, in exchange for scrip. The closing price of this stock to-day were 31⅜ to 31⅞. In railways Caledonian rose to 120¾, and North British to 86⅛. Some enquiry existed for Varna shares and obligations, strange to say, in the present state of affairs in Turkey. Each advanced 5s., to 1¼, 1¾, and 2¼, 2¾ respectively.

TUESDAY.—Recent buyers showed a wish to-day to realise rather than carry over. Many of those interested in Caledonian held out for a backwardation which was given last account, but were ultimately obliged to close. This made the stock very heavy, leaving off no better than 120, though made up at 120¾. Egyptian bonds were particularly dull, both the Preference and Unified falling 1¼, to 53½ and 30½ respectively, while Russian, 1873, declined to 83⅛. The principal feature of the day, however, was the heavy fall (for them) of the American Funded Loans—not less than 1¼ per cent.

WEDNESDAY.—Great Laxey shares were in request at 21½, and Roman Gravels at 8¼. South Roman Gravels were offered at 5s., North Laxey at 5s., and Parys Mountain at 11s. Some business was done in San Pedro at 9s., in Plumas Eureka at 2¾, in Alamillos at 1¾, and in Rio Tinto shares at 3¼. The dividend of the Cuba Submarine Telegraph Company for the half year will be at the rate of 8 per cent. Further weakness was shown in Egyptian stocks, and it was quite probable that they may fall further, although the Unified has now receded to 30, and the Preference to 52¼. The issue of the directors' report sent down Districts to 52¼.

THURSDAY.—A further severe fall took place in Egyptian Bonds. At the opening the Unified was dealt in at 29¾, and the Preference at 50½. The Bank of England directors lowered the rate of discount from 3 to 2 per cent. The following railway stocks are now quoted ex dividend: Great Eastern, Brighton, Sheffield, and Metropolitan. I.X.L. shares were dealt in at ½, and Richmond at 9½. The balance-sheet of Eley Brothers, issued for the meeting on Feb. 5, shows that the employment of 207,0 0*l*. capital has led to a net profit of over 64,900*l*.—a very surprising result. At the Port Phillip meeting to-day the directors' report was adopted, and a dividend of 1s. per share declared.

FRIDAY *(Opening).*—Consols being quoted ⅛ higher (95⅛ to 95¼), there is a general improvement in prices. Egyptian Preference are 52¾, and the Unified 30¼, or ⅛ per cent. higher in each case. The Berwick dividend is announced as one of 7¼ per cent.; the stock has slightly fallen, and York, A, shows weakness. —*Two o'clock.*—Consols at one time lost the improvement, but are now again 95⅛ to 95¼. Russians are very firm, and now 84¼ to 84¾, being a rise of 1¼. Egyptian Preference is now 52¼. In Railways, Dover, A, have advanced ¾; York, A, is down 1¼. In mines, Eberhardts have improved to 7¼. Port Phillips meet with enquiry, and are quoted ⅜ to ¾. Flagstaffs are flat. Tankervilles are offered at 4¼. Great Laxeys are exceptionally firm, at 22.—*Four o'clock.*—Russians have been as high as 85, and Egyptian Preference 53, buyers, but both are now a little easier. Dover, A, are now quoted 120⅛ to 120½; Turkish Fives, 83½ to 85½; Chapel House Colliery, 2¾ to 3; Alltami, 4 to 4¼; Newport Abercarn, 4 to 4¼; Hudson's Bay, 10½ to 10¾; General Credit, 6 to 6¼; Royal Aquarium, 2⅞ to 3⅛; Milner's Safe, 7⅛ to 7¾.

FERDINAND R. KIRK.

Birchin-lane, Feb. 1.

Messrs. PIXLEY and ABELL—GOLD: Sovereigns to the value of 57,000*l*. received from the Continent have been sent into the Bank; with this exception all arrivals have been purchased for the Continent, and 150,000*l*. in addition has been withdrawn from the Bank. We have received from the West Indies and River Plate 40,450*l*.; from India, 9005*l*.; and 57,000*l*. from the Continent.—SILVER: The price slightly improved at the close of last week to 53¾d., at which rate the bars by the West India steamer were sold. The market is firmer again to-day on purchases for Spain and a cessation of shipments from America, and the nearest quotation we can give is 53⅞d. to 54d., with nothing offering. The arrivals comprise 52,4000*l*. from the West Indies, 29,600*l*. from New York, and 4000*l*. from Germany. The Peninsula and Oriental steamer leaving to-day takes 120,000*l*. to Bombay.

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: The London Coal Supply (W. J. Thompson); Manganese Bronze for Plating War Ships; Compressed Air—Its Applicability for Pumping (R. Larchin); Gold Quartz Mining (S. J. Moulton); the San Juan Mines (J. M. Stuart); Flagstaff Mine; Richmond Mine; New Quebrada Copper Mining Company; Mundics; the Blende Trade; Lead Mining in the North of Scotland; Lead Mining in Keswick District, Cumberland; the Cost-Book System, and Limited Liability (R. Tredinnick); the Mineral Resources of Ireland (M. Boundy); Mining and Countermining in Cornwall; Hingston Down Consols; North Laxey, and its Management (R. Byron); Home Industries—National Wealth—No. III. (T. Vosper); Public Companies in the Future (M. F. Dormer); Rookhope Mining Company (J. H. Murchison); D'Eresby Mountain Mine (C. B. Parry); Lead Mining in the Peak of Derbyshire; West Chiverton Mine (R. Southey); Llanrwst Mine (Granville Sharp); Mining in South Devon—the South Molton Consols Mine; Great Caradon Mining Company (E. J. Drew); the South Molton Consols Mine (W. Warren); Wheal Mary Hutchings—Small Locomotive Engines for Mines (*illustrated*)—Meetings of Don Pedro, Great Snaefell, South Roman Gravels, and Cwm Dyfor Companies, &c.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, FEB. 1, 1878.

IRON.	£ s. d.	£ s. d.
Pig, GMB, f.o.b., Clyde..	2 11 5-	—
,, Scotch, all No. 1 ...	2 12 6-	3 10 0
Bars, Welsh, f.o.b. Wales	5 5 0-	5 10 0
,, ,, in London.	5 15 0-	6 0 0
,, Stafford., ,, .	7 0 0-	8 0 0
,, in Tyne or Tees ...	5 10 0-	5 15 0
,, Swedish, London ..	9 15 0-10	0 0
Rails, Welsh, at works..	5 0 0-	5 2 6
Sheets, Staff., in London	8 15 0-	9 0 0
Plates, ship., in London	7 0 0-	7 5 0
Hoops, Staff.	7 15 0-	8 0 0
Nail rods, Staff. in Lon.	6 10 0-	7 0 0
STEEL.		
English, spring 14	0 0-19	0 0
,, cast 35	0 0-45	0 0
Swedish, keg.....16	0 0-	—
,, fag. ham. 17	0 0-	—
LEAD.		
English, pig, common..18	12 6-18	15 0
,, ,, L.B.....19	0 0-	—
,, ,, W.B. 19	10 0-	—
,, sheet and bar..19	15 0-	—
,, pipe.....20	10 0-	—
,, red 22	5 0-22	10 0
,, white 27	5 0-28	0 0
,, patent shot ...24	0 0-	—
Spanish.....18	7 6 18	12 6
NICKEL.		
Metal, per cwt. 19	0 0-21	0 0
Ore, 10 per cent. per ton.25	0 0-30	0 0
QUICKSILVER.		
Flasks of 75 lbs., ware. 7	5 0-	—
SPELTER.		
Silesian..... .. 18	15 0- 18	17 6
English, Swansea 21	0 0-	—
Sheet zinc 22	10 0- 24	0 0

TIN.	£ s. d.	£ s. d.
English, ingot, f.o.b... 67	0 0-	—
,, bars ,, ... 68	0 0-	—
,, refined..... 70	0 0-	—
Australian 63	0 0-	—
Banca 66	0 0- 67	0 0
Straits 63	5 0- 63	10 0
COPPER.		
Tough cake and ingot. 68	10 0- 69	0 0
Best selected 70	0 0- 70	10 0
Sheets and sheathing. 75	0 0- 75	10 0
Flat Bottoms 78	0 0-	—
Wallaroo 75	10 0-	—
Burra, or P.C.C. 74	0 0-	—
Other brands 71	0 0-	—
Chili bars, g.o.b..nom. 65	10 0-	—
PHOSPHOR BRONZE.		
Bearing metal £112	0	0
Other alloys £120	0 0-140	0 0
BRASS.		
Wire 8¼d.-		—
Tubes..... 10¼	-	—
Sheets 9½	-	—
Yel. met. sheath. & sheets. 6¾	-	7d.
Nails composition..... 8¾	-	9
TIN-PLATES.*	per box.	
Charcoal, 1st quality ... 1	0 0-	1 1 0
,, 2nd quality... 0	19 6-	1 0 0
Coke, 1st quality 0	18 0-	—
,, 2nd quality 0	17 0-	—
Black .....per ton 16	0 0- 16	10 0
Canada, Staff. or Gla., at Liverpool	11 10 0-	12 0 0
Black Taggers, 450 of 14 × 10	30 0 0-	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—There are no signs as yet of any general improvement in the demand for metals, and the first month of the new year has been unfavourable to our markets. Although it is a bad beginning we do not despair of better times shortly, but everything depends upon the course of events during the next two months, and we hope by that time our markets may assume a very different aspect, but great caution is still advisable, and no risky business ought to be entertained. Prices have slightly varied according to speculative tendencies, but such fluctuations fail to produce any influence upon legitimate business, which keeps extremely quiet, and requires to be carefully protected from the injurious effects of random speculations. There are many and great difficulties still to contend with in conducting mercantile transactions to a successful issue, and it is very desirable that a free and open course should be kept for the preservation and development of genuine trade, otherwise our markets may sink into a course condition than hitherto, and, without proper management and control, may utterly collapse; therefore, we cannot impress too strongly upon suppliers the absolutely necessity of continuing to meet the altered requirements of buyers in every possible way, and to wholly abstain from any attempt to enhance prices prematurely. It is in the power of sellers to materially aid the recovery and progress of trade by reducing prices to the minimum of profit, and thus afford a large measure of relief to the indigent consumer; and there never was a time when cheap prices were so much wanted as now, and we hope every care will be taken and every encouragement given to sustain consumption. With that object we recommend a reduction in the prices of all metals, and then there would be a greater chance of a quicker recovery, and although a temporary loss might have to be endured, yet it would probably terminate in an ultimate gain. The best prospect of success depends upon keeping our markets in a perfectly safe and sound condition—entirely free from wild and extravagant speculation and artificial bolstering up of prices, as the home as well as the foreign trade is so very feeble and quite unable to bear with any violent treatment—so sensitive, indeed, that any sudden or extensive movement of a speculative character would undoubtedly impede the regular demand.

Stocks ought not to be allowed to increase beyond their present dimensions, and whenever it is found that consumption is not keeping pace with supplies prices should be lowered. It is sometimes said that we favour buyers' views only, but this we must emphatically deny, for we contend that it is in the interest of sellers to accept low prices until the position of buyers has improved and the spirit of enterprise has again firmly taken hold of our markets. Vile deception may lead a man on to destruction, but timely warning may prove his salvation, and we would not willfully embellish our reports and give false expectations simply to obtain favour: we value our freedom and independence too much, and will never lend ourselves to such a mean and despicable course as the publication of falsehoods, or the suppression of truth, though we thereby forfeit the patronage of the best constituents. Honour and truth must not be sacrificed for the sake of riches and favour. In giving an account of our markets it is necessary to have an eye to the future, for it would be a poor satisfaction to make a present gain at the expense of a future loss. What we desire to see is the exercise of patience and prompt submission when necessary to further concessions, that we may securely retain and afterwards promote the future trade of England. It is an admitted principle amongst business men not to pull counter to a stream, for many there are who from obstinacy or indiscretion have done so, and the result has invariably been failure, involving not only the loss of capital and friends, but the loss of character as a thoroughgoing business man. Adversity still prevails throughout the country, and there is no promise of any immediate change to one of prosperity, and buyers and sellers must necessarily regulate their dealings accordingly.

The uncertainty which continues to surround politics contributes to the general depression, and there must first be a definite and satisfactory settlement of the Eastern Question before any substantial, permanent, and universal improvement can be anticipated. Russia has been very much to blame in keeping secret so long the conditions of peace, for it naturally causes other nations to suspect her of duplicity, and to adopt such measures as they consider expedient for their safety. It is neither honourable, respectful, or considerate to have kept the whole of Europe for the last week or two waiting in the utmost state of anxious suspense to learn whether an armistice was signed. England honestly and publicly stated her conditions of neutrality in a manner that could not be misunderstood, and if Russia seeks not her own advantage, but only the amelioration of the Bulgarians, what occasion is there for so much secresy and delay? England wishes no war with Russia so long as she acts honourable and stays her hand. Enough has already been done to punish Turkey, and Russia, before proceeding further, must now take into account the limits we have already defined as the conditions of our neutrality. The power of Great Britain must be upheld, and we must immediately vote the means asked for by the Government for that purpose, and we are truly astonished, ashamed, and disgusted with the conduct of some of the liberal leaders in trying to convert an Imperial measure of such vast importance into a mere party question. There may be some degree of sincerity in the opposition of the cackling and noisy section of misguided religious fanatics, but better things are expected of men of a higher stamp. Mr. Gladstone's reasonings at Oxford were of the weakest type, and he condemned himself, for if the present Government are to blame for not interfering actively in the internal affairs of Turkey in behalf of the Christians in Bulgaria, why did not Mr. Gladstone when in office take active measures in behalf of the Christian Poles, and rescue them and the exile of Siberia from the aggression of Russia? But, whatever may be said to the contrary, and notwithstanding the disturbance it may occasion to commerce, England has fully resolved to firmly maintain her cause, and if events should require that certain commanding positions be secured to us, all necessary steps must be taken in time for that purpose. We want trade badly enough, but badly as it is wanted no sacrifice will be deemed too great whenever we may be called upon to enforce the just and righteous claims of England. Let us, therefore, stand firm and united, that the mighty power and influence of Great Britain may be respected and instrumental in accomplishing a happy pacification and satisfactory settlement of the Eastern Question.

COPPER.—The course of this metal has been variable, and prices have been subject to rather wide fluctuations, as great a difference as 10s. per ton taking place during the short interval of two changes in one day, the receipt of the least unfavourable political intelligence producing an instantaneous effect upon the disposition of operators. The demand is partial, chiefly amongst speculators, consequently very unreliable, and liable to a collapse at any moment. The transactions lately have been partly to cover "bear" sales, and not from any general belief in the stability of the market or in the probable realisation of higher prices. It was thought that a speculation might spring up upon an armistice being signed, but as it is still somewhat doubtful whether that is an accomplished fact, and the Government demand for six millions sterling for war preparations in case of need has changed the tone of operators very considerably, and they are much less sanguine now than before. Nevertheless support is still given to the market by the continued firmness displayed by the principal holders, at the same time there exists a want of confidence amongst buyers, which will effectually prevent any material rise unless circumstances alter very much, and a great change comes over our market, but this can scarcely be looked for within a short time, and it is almost impossible for prices to be advanced upon any reasonable grounds. The demand all round is flat, stocks are large, and supplies are not likely to diminish. Chili bars are at a most absurd price in comparison to other descriptions of copper, and as the stock in Valparaiso is reported to exceed 7000 tons we must be prepared to receive full average shipments, but it is not the supply that is the weakest feature about them, but the exceptional price which is quoted for them, being quite out of proportion to that of English, or any other kind.

Tharsis tough this week is currently quoted 68*l.* 10s. to 69*l.*, and this forms no exception to many other English brands, and where is there a consumer on the Continent or in England who is likely to take Chili bars in preference to English at such a ridiculously slight difference in price, the former ruling about 66*l.*? There is no sufficient outlet for the stock and supply of Chili in England, and the French smelters are not so blind to their own interests as to select copper with only 96 per cent. guaranteed when they can buy English with 99 to 99½ per cent. at nearly the same cost, and it may be taken for granted that sellers of English would not make sales at 68*l.* 10s. to 69*l.* if better could be done; we give them credit for being wide awake enough upon that point. Where, then, is the advantage of buying Chili bars? It is a problem which we will not attempt to solve, but will leave it to the consideration of those who are making Chili bars a speciality, and unnecessarily paying too much; the price ought not to exceed 64*l.* Holders of Chili bars should not hesitate to avail themselves of the present price, for it is the best opportunity they are likely to have for a long while. The stock of Australian in London is 4800 tons, against 2717 tons same time last year, and this is another weak feature of the market, and holders are doing themselves a serious injury by allowing the stock to go on accumulating in this manner. It is not the business of an importer to speculate with the market, and the stock should at once be sold, or it will involve a heavy sacrifice in the end to the banks or others who hold it, for they may rest assured that buyers will not take it over unless at a low price, and the longer the sales are delayed the less return will probably be realised. Burra and Wallaroo are exceptional brands, and being in special request are to a great extent unaffected by the position of other makes.

IRON.—For common bars the demand is reported slightly better, but that is not saying very much for them, for the orders lately have been extremely limited, but the few orders which sellers have just taken enable them to maintain previous rates. The wisdom of upholding prices may, however, very well be questioned, for it simply has the effect of driving away orders, and assisting the freer sale and circulation of Belgian iron, the prices of which continue to be quoted considerably below those of English. In Staffordshire qualities some of the makers have made further slight concessions since the reduction in wages, and this is very commendable on their part, and we hope it will meet with the reward it deserves. Hoops have been offered for delivery in Liverpool on the basis of 8*l.* 17s. 6d. for ordinary sizes. Makers apparently are now beginning to make a laudable effort to bring back the trade to the country, and we trust they will not slacken their zeal, but they cannot do everything of or by themselves, and everybody in connection with the trade ought to bear a fair share of the burden. The men must accept still lower wages, and we feel sure if they do they will hereafter benefit by it, for they will sooner get more to do; that will compensate for the sacrifice they are called upon to make. But there is another class of men who ought to come forward and assist in lightening the load, as they are well able to do so with little inconvenience to themselves. We mean the landlords. Reduced rents and easier terms would be a great blessing to those who rent or lease mines, factories, and houses, and landlords should voluntarily come forward at the present severe crisis and make some substantial allowances for the next two or three years, that expenses may be reduced in every possible way, and living thus made easier for the working classes, and a better opportunity afforded to the manufacturer to effect the restoration of trade. There is, perhaps, no class who is better able to afford a diminution of their incomes than landlords, and as their interests are dependent upon the prosperity of their estates they ought to do everything to help their tenants through bad times, and a concession of 20 or 25 per cent. in rents would be most acceptable, and only what ought to be done. A landlord had better be content with a fourth of the rent for a short time than to see his property rapidly declining in value through the stoppage of factories and the desertion of houses and villages, and such is the condition of many of our iron places that before long, unless something of the sort is done, they will be abandoned altogether, and the once flourishing little hamlet or village will dwindle down to a mere agricultural district.

This is a time which demands the greatest consideration from landlords, and they should not be backward in affording the necessary relief in some such way as we have suggested. Railway and canal companies should lower their rates for carriage, and lightermen ought also to do their part by cheaper rates for lighterage. The commission merchant and broker have to be satisfied with less commission than formerly, and all should combine in working cheaper and longer until the dawning of more prosperous times. There is perseverance and energy remaining in the country, there must also be frugality and economy, and an unanimous feeling and desire to work harmoniously and to mutual advantage. The Trade Unions have caused opposition between masters and men, but Trade Unions ought no longer to exist, for they are the ruination of the poor men and a curse to the whole country. The reduction in puddlers' and millmen's wages appear to have made a slight alteration in the prices of some sellers. Merchants are thought to be withholding orders, but will not give them out on account of manufacturers not having made what buyers consider adequate concessions, and it is believed that if prices were to fall a little more a great quantity of iron which is now being held back would be sold. No improvement worthy of note is to be reported from Leeds, three or four days per week being the average time forges are working. The Low Moor Iron Company, who keep their machinery in work four days a week, state that work has never been so scarce as it has been all through 1877, and up to the present time in this year. However, there are a few firms that have experienced a slight change for the better, both in the demand for bars and boiler-plates. Prices have remained without alteration at South Durham. Stocks are accumulating very considerably, through merchants declining to buy. There have been few transactions in manufactured iron, 6*l.* 2s. 6d. to 6*l.* 5s. being quoted for plates, 6*l.* for angle iron, and 5*l.* 12s. 6d. for ordinary bars. Masters are doing their utmost at Sheffield to counteract the Belgian competition. Hopes are entertained that something may be done now that wages are so low to restore some of the former activity into the trade.

The Northfield Ironworks in the Rotherham district, which have now been closed for about two months, are expected to re-open very shortly. This is, however, about the only encouraging feature we are able to report, business remaining in quite as depressed a condition as it has done for some weeks past. Bessemer iron is in a fair demand by steel manufacturers at Barrow-in-Furness, but hematite brands are very weak and quiet. Mr. Chamberlain's award at Birmingham appears to have been appreciated more by the men than the masters, and although merchants refuse to make contracts at the present rates makers still affirm that they cannot accept any lower price, as such a course would prove to be no gain to them, if they did not incur any loss by the transactions. The warlike appearances of the country are keeping trade in a very depressed condition at Middlesborough. The marked dulness which was so conspicuous all through last year has been prolonged up to the present time, and there appears to be nothing which is likely to cause any animation in the markets until the Eastern Question is solved. Foreign markets have undergone very little change. The French trade is very dull, the Paris markets especially showing a great deal of depression. The ordinary quality for charcoal made pigs for refining are quoted from 4*l.* 4s. to 4*l.* 5s. 8d. per ton. There has been a slightly better demand for Scotch pigs during the week, a fair business having been done from 51s. 2½d. to 51s. 4½d. for prompt cash, and 51s. 3d. to 51s. 6d. one month, the present price being 51s. 5d. cash.

SHIPMENTS.

For the week ending Jan. 26, 1878 ..... Tons	6,170
For the week ending Jan. 27, 1877.....	6,040
Increase	130
Total decrease for 1878	2,217
Imports of Middlesborough pig-iron into Grangemouth:—	
For the week ending Jan. 26, 1878..... Tons	5,935
For the week ending Jan. 27, 1877.....	3,505
Increase	2,430
Total decrease for 1878	3,500

FURNACES.

In blast Jan. 27, 1877	108
In blast Jan. 26, 1878	87

TIN.—The tendency has been towards easier rates, and buyers seem shy of buying more than enough to satisfy immediate requirements. The dealers are greatly discouraged at the large supplies coming forward, and are as much puzzled about the future prospects of this metal as they have ever been. Nothing definite appears to be known in regard to quantities, or at what price the production will be effected. The value must, of course, be regulated by the supplies, and the price as yet does not appear to have made any sensible impression. The reduction of a few shillings per ton is useless, for it is no test, and it must be as many pounds before we can perfectly judge of the effect: 60*l.* per ton is a figure that would give a fair test to the production. It is evident that 65*l.* is not low enough, and any intermediate price is too slight to exercise any particular control. Were it not for the good deliveries that have taken place the price would have already receded to 60*l.* There will be no reliable market until the cost of production is better ascertained and understood. The deliveries during the past month amount to 1592 tons, and the stock is 8268 tons. In Holland the deliveries of Banca and Billiton are 14,747 slabs, and the stock 41,135 slabs.

THE IRON TRADE.—(Griffiths's Weekly Report).—Friday evening. The Glasgow market for Scotch pig-iron opened quiet this morning with buyers at 51s. 5d. This afternoon the market was more active, closing with buyers at 51s. 6d., sellers asking 51s. 9d. This is an advance of 6d. since last Friday, when warrants closed at 51s. We quote makers' No. 1 iron—Gartsherrie, 52s. 6d.; Coltness, 64s. 6d.; Calder, 59s.; Langloan, 61s. 6d.; Summerlee, 58s. 6d.; Monkland, 52s. 6d. f.o.b. Glasgow; Glengarnock, 58s.; Eglinton, 53s. 3d. f.o.b. Ardrossan; Shotts, 60s. 6d., f.o.b. Leith; Kenniel, 54s. 6d., f.o.b. Bo'ness. We have no change to report in the iron trade since our last issue. The unsatisfactory phase into which the Eastern Question has now drifted causes the greatest anxiety, and interrupts the ordinary course of business, tending to increase the general depression which overhangs the iron trade in every department.

There is no change in prices at any centre, and with the exception of sheet-iron in Staffordshire, which is in fair demand, the trade continues flat and inanimate in all quarters. The orders on our own market this week are less than usual. Railway companies, and particularly engineers, seem determined to wait the issue of the results which the Eastern Question presents. We have no contracts to report this week for rails in iron or steel, and few in prospect are spoken of on the market. The competition by Belgium for the commonest bars and wire-rods by the Germans is seriously felt, and often commented upon. Messrs. Turley, of Tipton, and Messrs. Fowler, of Barbours-field, are both blowing in an additional furnace, and the Castle Coal and Iron Company, at the Walsall, are blowing their last furnace out, Mr. Bennett, the managing director of the latter, having come to the conclusion that pig-iron cannot be made without a loss. It is reported that the Consett Company will blow out two furnaces, and several other smelters in the Cleveland district will soon follow this wholesome example. We think it very likely that the Bradley estate, belonging to C. B. Thorneycroft and Co., has already been purchased by a gentleman very well known in Dudley.

The meeting of the smelters, which took place at the Birmingham Exchange on Thursday, decided not to reduce furnacemen's wages further. In the present state of the iron trade this decision does the smelters great credit, for they are really working without profit. At the annual meeting of the Ironmasters' Association, held at the Queen's Hotel last Thursday, J. P. Hunt, Esq., in the chair, Mr. Hunt was re-elected president for another three years, and the panel appointed for the same period consisted of the Earl of Dudley, John Bradley and Co., Philip Williams and Sons, Brown and Freer, N. Hingley and Sons, W. Barrows and Sons, S. Groucutt and Sons, the Chillington Iron Company (limited), New British Iron Company, and the Osier Bed Iron Company. With the exception of certain specialities made by two firms in the neighbourhood of Bilston, the tin plate trade continues in a very depressed condition. The coal trade is remarkably slack, and orders fall short to such an extent that the coal masters in all districts are working literally without profit. The meeting of the shareholders of the Llynvi, Tondu, and Ogmore Company took place at the Cannon-street Hotel here yesterday. The last six months' working showed a slight profit, without making any provisions for the interest due to the debenture-holders. The trustee is instructed to carry the works on for the present.

Business has not improved in the MINING SHARE MARKET since our last, and the general markets also are still seriously affected by the uncertainty which prevails in regard to the Eastern Question. Probably in another week things will be in a more settled state one way or the other. The mines dealt in this week have been Van, Great Laxey, Glenroy, Parys Mountain, Leadhills, Tankerville, Hingston Down, South Condurrow, Rookhope, and a few others.

TIN.—No change for the better has taken place here either in this metal or in shares. The Dutch sale this week of Banca tin realised about the same price as that of the last—68*l.* 10s. in London. Dolcoath are quiet, 31 to 33; Carn Brea, 39 to 41; Tincroft, 11 to 12. South Frances, 2½ to 3; at the meeting, on Wednesday, the accounts for four months showed a loss of 165*l.*, and a credit balance of 136*l.* The costs charged to December were 4148*l.*—Credits: Tin sold (105 tons), 3949*l.*; sundries, 33*l.* It was resolved that the 100*l.* which had been fixed upon should be paid to Wheal Basset in satisfaction of the old claim, and it was suggested that before the shaft and adit were proceeded with any further they should ask that mine to recognise it as being part of the general scheme. The prospects of the mine are favourable, and the present return of 105 would have left a good profit if the tin had brought a better price. Most of it, however, sold at 34*l.* 5s. per ton, and the highest at 42*l.* At 50*l.* per ton there would have been a profit of 1200*l.*

At Wheal Kitty (St. Agnes) meeting the accounts showed a loss on five months' working of 460*l.*, and a balance against the mine of 468*l.* The costs, only charged to September last, amount to 3670*l.* The credits are 77 tons of tin, sold for 3171*l.*; this tin realised about 41*l.* per ton. The agent's report was of an encouraging character so far as related to the mine itself; the price of tin is the main grievance here as elsewhere. At St. Aubyn United a call of 2*l.* per share was made. Cook's Kitchen, 2½ to 3; Penstruthal, 4s. to 5s.; South Condurrow, 9 to 9½; South Crofty, 9 to 10; West Godolphin, 1¼ to 1⅜; Wheal Agar, 3¾ to 4¼; Wheal Grenville, 2½ to 3; Wheal Peevor, 6 to 6½; Wheal Uny, 15s. to 20s.; North Cornwall, 5¼ to 5½; Livingstone Consols, 15s. to 20s.

COPPER MINES are without change. At the Cornish ticketing on Thursday the standard declined 4s. per ton. The average price of the ore sold was 4*l.* 6s. 6d. per ton. Devon Great Consols, 3 to 3½. West Tolgus, 75 to 77½; the sale of ore here realised 211*l.* Wheal Crebor, 10s. to 20s.; at the monthly setting the lode in the 120 end is reported worth 15*l.* per fathom, set at 8*l.* 10s. No. 1 stope is worth 10*l.* per fathom, set at 4*l.* 15s. No. 2 stope is worth 15*l.* per fathom, set at 3*l.* 10s. The new shaft has been set at 12*l.* per fathom. Bedford United, 3s. to 5s.; Gawton, 2s. to 4s. Hingston Down have advanced to 7s. 6d., 10s., not from any change or improvement in the mine, but from purchases made with a view to change the management. Parys Mountain advanced to 10s., but leave off 8s. to 10s. South Caradon, 85 to 90.

LEAD MINES are more dealt in than any others, and keep up their prices better; still the business transacted in them is very restricted in comparison with what it used to be, and for the most part quotations are nominal. Van shares have been in request, and leave off 27 to 29. Great Laxey shares also in fair demand, at 21½ to 22½. Roman Gravels flat, at 7¾ to 8½; the lode in the 106, north of flat-rod shaft, is worth 2½ tons of lead ore per fathom. South of this shaft the lode is 6 ft. wide, worth 1 ton per fathom. Tankerville, 4 to 4½; the 192, west of Watson's shaft, is worth 3 tons of lead ore per fathom. Other points without material alteration. East Van, 2 to 2½; Glenroy, 15s. to 17s. 6d.; Grogwinion, 4 to 4½; Herodsfoot, 9 to 10; Ladywell, 7s. 6d. to 12s. 6d.; Leadhills, 4 to 4½.

At the South Roman Gravels meeting, full particulars of which will be found in another column, it was determined to have further advice, and it was thought desirable to explore some of the other well-known lodes running through the sett with the capital still in hand, and which amounts, after paying all liabilities to the present time, to about 800*l.*, independent of two steam-engines and other expensive plant. Several well-known lodes run through the sett, but only two have been tried. Llanrwst, 1½ to 1¾; North Laxey, 4s. to 6s.; Pateley Bridge, 2½ to 3; Rookhope, 17s. to 19s.; Temple, 2½ to 2¾; West Chiverton, 13½ to 14½; West Pateley Bridge, 1½ to 2; D'Eresby Mountain, 50 to 60; West Tankerville, 12s. 6d. to 17s. 6d.; Wye Valley, 1¾ to 2½; West Wye Valley, 4 to 4½; Court Grange, 1 to 1½; Caron, 2½ to 3.

In FOREIGN MINES Blue Tent are quoted at 3 to 3¼; Hultafall, 5 to 5½; Chontales, 12s. 6d. to 15s.; Eberhardt and Aurora, 7 to 7¼; Flagstaff, 12s. 6d. to 17s. 6d.; Frontino and Bolivia, 2 to 2½; Javali, 7s. to 9s.; New Zealand Kapanga, 17s. 6d. to 22s. 6d.; New Quebrada, 2⅜ to 2¾; Pestarena, 5s. to 7s.; Port Phillip, 12. 6d. to 15s.; Richmond, 9 to 9½.

The Markat for Mine Shares on the Stock Exchange has continued in an inanimate condition owing to the uncertainty still existing with regard to the question of peace or war. But as doubt no longer exists that the Vote of Credit will be carried by a fair majority, there is less disposition to press sales at present low prices, the general impression being that the stability which the vote will create will ensure ability on the part of the non-combatant powers to demand a peace which may prove satisfactory and durable, and thus produce a general improvement both in the value of securities and in the various industries of the country.

The necessity of a thorough reform in the process of liquidating public companies daily becomes more apparent, both contributories and creditors becoming heartily sick of being compelled to lose not only the funds fairly risked for the working of, or giving credit to, an industrial undertaking, but also those necessary to provide what is almost equivalent to an annuity to liquidators and accountants. In the Times of Oct. 20 reference is made to the sale of the works of the Governor and Company of Copper Mines in England under the head of "The Cwm Avon Works." In July, 1876, a liquidation order was obtained, on the petition of the board of directors, by their solicitor Mr. Maples, and Mr. Young, of the firm of Turquand and Co., was nominated by the Board and duly appointed liquidator. In the accounts issued just prior to the annual meeting of the company, held April 5, 1876, the position of the Company's affairs was shown to be—stocks, &c., at Cwm Avon, 151,088*l.*; sundry debtors to the company, 46,488*l.*; cash, 2,781*l.*: 200,357*l.* Against this 200,357*l.* there were sundry creditors of the company whose claims amounted to 51,357*l.*, leaving an apparent balance in favour of the company of 149,000*l.* This large balance to the good of the company was shown to be exclusive of the copper works, blast furnaces, iron mills, collieries, forges, tin-plate works, houses, cottages, &c. Assuming the stocks, &c., at Cwm Avon to be worth only about one-half the 151,088*l.*, there would still remain a surplus of between 70,000*l.* and 80,000*l.* after paying all claims, and this exclusive of the various works and properties just mentioned, for division among the preference shareholders, sufficient to give them 6*l.* or 7*l.* a share for each of their 25*l.* shares. The creditors have month after month being expecting to receive payment of their claims in full, and the facts fully justified this expectation. After waiting about a year and a half they have been paid 15s. in 1*l.*; when they will get the other 5s. is very uncertain. The shareholders have no hope held out to them of receiving anything. It is stated that the entire works and stocks were some months since sold by the liquidator for 55,000*l.*, and that, too, without having been put to public competition. According to the statement in the Times, the buyers are making an enormous profit out of their bargain, and no doubt this must be so. The shareholders are not likely to get one penny, and the creditors begin to fear they will not be paid in full, while the speculators referred to will make a large fortune. This is liquidation, indeed! and those interested naturally ask whether there is no remedy.

The office of London manager of mining companies appears to require remodelling, to judge from the proceedings at a directors' meeting on Thursday, which seems to have been somewhat of the character which John Bright describes as "the raving lunacy of the Pall Mall Gazette, and the delirium tremens of the Daily Telegraph." The part of the over-animated individual was, however, played by an official of the mining company. Happily, these beargarden scenes are not common to the directorial board, and that any London manager should so far forget himself as the gentleman appears to have done on Thursday, is much to be deplored. The advantage of the general body of shareholders in mines of having offices in London is obvious, but directors and shareholders must have a care to impress upon their London managers that they are the servants of the directors, who are the immediate representatives of the shareholders, and that as servants they should obey rather than command. The principle which causes managers to forget their duties to their employers, and to place their directors in a very disagreeable position is one which can readily be abandoned, and in the interests of mining capitalists generally it speedily should be, It is the old evil of plurality that has to be got rid of. The professional company manager secures the position in connection with a dozen companies at once, so that, although he may receive but 100*l.* or 150*l.* per annum from each, his total salary is 1200*l.* or 1800*l.*, an amount which makes him too proud for his position, although from the necessity of his entrusting each company's business to the care of a clerk, neither of the concerns receive even the 100*l.* worth of care and attention, much less such an amount as is requisite to to make the company a success. This is a state of affairs which imperatively calls for action on the part of mining capitalists.

Richmond 9 to 9½; the usual weekly telegram from the mine state that the week's run was $90,000, from 1150 tons of ore. During the week the refinery produced $60,000. The telegram adds that the mine is looking very well, and that the reserves have largely increased between the fourth and Lisette levels. The Sentinel of Jan. 8 states that the Richmond Company's furnaces are doing some remarkable work. They have been in continuous operation for four months, with the exception of a few hours devoted to cutting down, and are now averaging a daily product of over 40 tons of crude bullion. On Saturday last the combined work of the three furnaces amounted to 47 tons and 300 pounds, and was the product of pure ore, no fluedust or lead having been added. On Sunday the output reached 43 tons, or 16 tons to each furnace, the same conditions obtaining as the day previous. The ore from the mine is of very high grade, probably richer than ever before taken out, and the percentage of lead is large. Being free from refractory metals or constituents, the smelting process is rendered a very easy one, and the output of rich bullion must make the hearts of the English stockholders rejoice. The gloomy predictions indulged in after the conclusion of the great lawsuit have not been fulfilled, and the company find themselves in possion of a mine of unbounded resources and incalculable value.

The latest advices from Utah are to the effect that the Emma Mine is a property which every miner in the Cottonwoods firmly believes to be a great and permanent mine. It is asserted by those in a position to know that under the English company's management the ore which was in sight was extracted in as great a hurry as possible, without any effort to push forward the work of development, and that when the mine was shut down it looked as well as possible under the circumstances, though the ore vein in the Attwool winze was small. But under the management of the American Emma Mining Company it is believed the mine will produce large quantities of high-grade ore. There seems to be little doubt that the mine contains plenty of mineral, but nearly all the old workings have caved in, so that new shafts and tunnels must be run and retimbered before any great results can be realised. The upper portion of the mine was leased last summer to Mr. Berimgeour, who has since shipped several lots of ore therefrom, and a short time since made a strike of a 3-ft. vein of $75 argentiferous ore. A new tunnel is being run along the course of the old one, which has settled about 6 ft.; this part of the work is rapidly approaching completion, and will soon place the upper portions of the mine in perfect repair, The Bay City Tunnel, now the property of the company, is destined to tap many of the veins in the Emma Hill. As soon as the Atwood winze has been communicated with the tunnel a vigorous prosecuting will be commenced in the lower levels, and sinking commenced on the vein in earnest, and the prospects are regarded as very encouraging.

Flagstaff, ⅝ to ¾; a petition to wind-up was presented yesterday by a promissory note holder, the object being to protect the company by preventing other litigation, recent bills having been purchased for the purposes not considered beneficial to the company. Advices from the mine are described as being of a more favourable character both as regards the yield and quality of the ore, whilst a private telegram received announces a rich discovery in one of the upper level; this, however, requires confirmation.

Frontino and Bolivia, 1⅞ to 2⅛; the gold remittance to hand is valued at 1850*l.*, the produce of the mine and of gold purchased at the mines for the month ended Nov. 20. During the month to that date 617 tons of ore produced 477 ozs., and 313 ozs. were purchased for 663*l.* 10s. 5d., the value together being 1850*l.* The cost at the mines was 883*l.* 15s. 5d., and at Medellin and London 162*l.* 8s. 6d., leaving profit 140*l.* 5s. 8d., against which 421*l.* 5s. 2d. has been expended on capital account. The mines are reported to be progressing satisfactorily.

Hultafall, 5 to 5½; the weather until quite recently has been of a very open kind, but there is now sufficient snow and frost to enable the commencement of sleighing ore to the dressing-floors; carriage is thus done at a lower rate than in summer. Dressing operations are expected to be commenced at the end of the present month. From the latest accounts the values at the various points of work continue about the same as last reported.

Although the transactions in the shares of Lead Mines have been very limited they appear to have received most other descriptions. The principal dealings have been in Van, which are now quoted 27 to 29; the operations at the mime are going on much as usual. Grogwinion, 4 to 4¼, cum div.; these shares are slightly flatter, the late rise having brought about a few sales. The monthly sale of 100 tons of lead on Thursday realised 11*l.* 15s. per ton. Advices received yesterday state that the new discovery in the winze, sinking below the deep adit (the bottom level in the mine), has again improved, and is altogether of a most satisfactory nature for great returns of ore in depth, All other points in the mine are looking as well as usual, and yielding a full average quantity of ore. Wye Valley, 2 to 2½; a parcel of 25 tons of lead and 40 tons of blende was sold on Thursday. The last report states the 22 east is still looking well, and is steadily improving. The winze below this level is in good ore ground, and the manager is confident that at the next deeper level the counterpart will be met with of the exceptionally rich bunch of ore which existed at the 10 two years ago.

West Wye Valley, 4 to 4½; the sinking of Brooke's shaft progresses well. and will soon be down to the 52. The recent difcovery of ore in the 40 cross-cut south is about midway between the two shafts, and underneath one of the rich bunches of lead that was passed through in driving the 26. This is of great importance, as proving that the ore holds down, and the manager fully expects that further discoveries will shortly be made. The stope in the 40, east of Brooke's shaft, yields lead, and all other points in the mine look well.

Caron, 2½ to 3; the 10 west has again improved, and is of an encouraging appearance, being worth from 10 cwts. to 1 ton of lead per fathom, with every indication of further improvement. It is understood that a shareholder has just had the mine privately inspected by an eminent authority, and that consequent upon his favourable report there has been a renewed enquiry for shares. All operations at the mine are going on well, and a complete and efficient plant of water-wheels, crushing-mill, drawing and dressing machinery has just been purchased to be forthwith erected. South Cwmystwith, 3½ to 4; all operations going on well, and the new dressing machinery is working satisfactorily. Sales are to commence at once. St. Harmon, 1½ to 2½, cum. div.; dividend warrants to end of January have been sent out. Good accounts continue to be received. The cross-cut towards the south lodes gives indications of being very near one of the lodes, so that further discoveries may be reported at any moment. The lode in the 67 continues to look promising. Red Rock, 2 to 2½; the half-year's dividend at 10 per cent. has been paid. The last report states that all is going on well, and that another parcel of 40 tons of lead will be ready in a fortnight. Llanidloes, ¼ to ¾; a parcel of 15 tons of lead was sold on Thursday at 10*l.* 19s. per ton, and 50 tons of blende at 3*l.* The bottom levels look promising, and the lode is improving as depth is attained.

West Pateley, 2 to 2½; the North Rake vein, in the 20, east and west, is of the same value as last reported. The stope in back of the 20 west is worth 1 ton of lead ore per fathom. The manager says he has a large quantity of ore stuff underground in these levels. The Craven Cross vein continues to open out well as it approaches the perpendicular of the ore beds in the former workings, and preparations are being made to sink two winzes upon the vein below this level. Carting of ore to the mill will be resumed in a few days as soon as the frost permits.

Subjoined are the closing quotations:—

Assheton, 1 to 1¼; Carn Brea, 41 to 43; Devon Great Consols, 3 to 3⅛; Dolcoath, 31 to 33; East Caradon, ⅝ to ⅞; East Lovell, ¾ to 1¼; East Van, 1¾ to 2¼; Glenroy, ¾ to 1; Great Laxey, 21½ to 22; Hingston Down Consols, ⅜ to ⅝; Leadhills, 4⅛ to 4¾; Marke Valley, ⅝ to ⅞; Parys Mountain, 9s. to 11s.; Pateley Bridge, 2 to 2½; Penstruthal, ¼ to ⅜; Roman Gravels, 7¼ to 8¼; Rookhope, ¾ to 1; Tankerville, 4 to 4¼; Tincroft, 11 to 13; Van, 27 to 28; West Assheton, ½ to 1; West Chiverton, 12 to 14; West Pateley, 2 to 2½; West Tankerville, ⅝ to ⅞; Wheal Crebor, ¾ to 1; Grenville, 2½ to 3; Almada and Tirito, ¼ to ½; Argentine, 1 to 1½; Birdseye Creek, ⅝ to ⅞; Blue Tent, 3 to 3¼; Cape Copper, 32½ to 33¼; Cedar Creek, 4s. to 5s.; Chontales, ½ to ¾; Colorado Terrible, 1½ to 2; Condes of Chili, 1 to 2; Don Pedro, ⅜ to ½; Eberhardt and Aurora, 7 to 7⅛; Emma, 1s. to 2s.; Exchequer, ¼ to ½; Flagstaff, ⅝ to ⅞; Frontino and Bolivia, 1⅞ to 2⅛; Hultafall, 5 to 5⅛; I.X.L., ½ to ¾; Javali, ½ to ¾; Kapanga, ⅞ to 1¼; Last Chance, ⅝ to ⅞; New Pacific, 1 to 1½; New Quebrada, 2⅛ to 2⅜; Oregon Preference, 1¼ to 2½; Pestarena, ¼ to ⅜; Plumas Eureka, 2⅜ to 2⅞; Port Phillip, ⅝ to ¾; Richmond Consolidated, 9 to 9⅛; St. John del Rey, 310 to 330; San Pedro, ⅛ to ¼; Sierra Buttes, 1¼ to 1⅜; South Aurora, ¼ to ⅜; United Mexican, 2¼ to 2¾.

COLLIERIES.—We have very little news to report, there having been very few transactions on the colliery share market, but there is an upward tendency in the price of some of the best shares. This, perhaps, is as much as one can reasonably look for when it is considered that the causes which have so long operated against the coal trade are not yet removed, and only a few collieries can show any balance of profit. In some districts, however, trade is slowly improving. The output in South Yorkshire, for instance, is very large now, and finds a market, though not at very remunerative prices. Steam coal is in good demand in West Lancashire, Durham, and Staffordshire, while the request is growing in Newport and Newcastle has been placing large contracts for gas coal. There can be no doubt, however, that the general coal trade must not be considered in even a partially satisfactory condition until some better feeling exists between employers and men. The Northumberland dispute still drags on without any apparent prospect of an early settlement, the recent negociations for arrangement on the basis of a sliding scale having proved abortive, though no reason is given for the failure, it being simply stated that the negociations have failed.

We are pleased to be able to record the reaching on Wednesday last of the Park seam of coal at the Chapel House Colliery with the new 15 ft. shaft. The work has been well and most expeditiously done, but of course it has involved very considerable expense, and the shareholders will, no doubt, not be sorry to see the end of such heavy monthly outgoings reached at last. The money has, however, been judiciously spent, for the company will now be able to increase its output very considerably, and this, of course, with such a connection as they have means a material accession to their profits. The shares are firmly held, and are quoted at 3 to 3½, though no doubt when the good news is generally known they will see a rise. Alltami shares are at 4 to 5. It is stated that when the communication between the colliery and the London and North-Western Railway is effected a very good trade can be done. Llay Hall are at 8 to 10. New Sharlston, 3¼ to 3¾. Newport Abercarn, 4 to 4¼. Thorp's Gawber, 2¼ to 2¾. Cardiff and Swansea, ¾ to 1¼. Andrew Knowles and Co., 19¼ to 19¾. Cakemore, 1¾ to 2¼.

At Redrath Ticketing, on Thursday, 1273 tons of copper ore were sold, realising 5500*l.* 4s. 6d. The particulars of the sale were—Average standard, 88*l.* 13s.; average produce, 8; average price per ton, 4*l.* 6s. 6d.; quantity of fine copper, 101 tons 11 cwts. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Jan. 3.	1580	£ 89 7 0	8¾	£4 14 6	11s. 3½d.	£56 10 0
,, 17.	2782	94 4 0	6¼	3 12 6	10 8½	53 12 0
,, 31.	1273	88 13 0	8	4 6 6	10 10	54 3 3

Compared with the last sale, there is no appreciable variation (4s. decline) in the standard. There will be no sales on Feb. 7 and Feb. 14.

The creditors of Bonvilles Court Coal and Iron Company are to send in their claims by March 1 next.

The directors of the Bristol and South Wales Railway Wagon Company (Limited), at their Board meeting on Wednesday, determined to recommend to the shareholders a dividend of 10 per cent. per annum and a bonus at the rate of 2 per cent. per annum.

The directors of the London and County Banking Company have decided to recommend a dividend of 9 per cent. for the half-year ended Dec. 31 last, after having added 25,000*l.* to the reserve fund. This dividend, with the June payment of 8 per cent., will make 17 per cent. for the year 1877. The amount to be carried forward will be 6961*l.*

Claims against the Great West Van Lead Mining Company in liquidation are to be sent to the official liquidator, Mr. James Waddell, Queen Victoria-street, by March 1.

The Panulcillo Copper Company debenture holders are informed that the coupons due June 15 may from this date be presented at the Consolidated Bank for payment under discount at Bank minimum rate on day of presentation.

COAL FIELDS IN KENT.—The deep boring in the Wealden geological formation, near Hastings, did exceedingly valuable service to science, although the practical end of determining the existence or condition of the coal measures and primary rocks was not attained. So much knowledge, however, was brought to light, and so much more has since been obtained in the deep boring at Messrs. Meux's brewery in London, that further explorations have been determined on in the vicinity of Dover or Canterbury, and an influential committee has been formed. It is proposed to raise 5000*l.* by subscriptions, and to commence the work, which will be entrusted to the Diamond Rock-boring Company as soon as promises to that extent are received. With the powerful machinery which can now be employed there will be no difficulty in reaching a depth of 2000 ft. in nine months; and as the first 1000 ft. would be a 6-in. bore, and the remainder of the depth proportionate, there would be a favourable opportunity for accurate experiments on underground temperature, and which no doubt will be made use of. In selecting a site the sub-committee consider than an area of depression such as that which lies on the south side of the chain of the Ardennes and of the Mendips should be avoided, and the old area of elevation formed by the underground axis of these chains, and consinued in a plateau to the north of it, should be sought for—this Silurian plateau having been proved by the borings at Guisnes, Calais, Ostend, and Harwich at 627 ft., 1032 ft., 985 ft., and 1020 ft. respectively. In order to make more certain of coming upon the main axis of elevation, and in view of the lower secondary strata there beneath the chalk being possibly comparatively thin, they recommond a site in Kent within the valley of the Stour, south of Canterbury, or at Dover, still nearer to the shore of the Channel. The discovery of a coal field so near to London will amply repay the proposed expenditure; and, at any rate, if nothing more than extended knowledge should again result, the game will have been well worth the candle.

THE CHAPEL HOUSE COLLIERY.—On Wednesday the second new pit, 15 ft. in diameter, reached the Park Mine amidst great rejoicings. Of course, it was known to a day when it should be cut, but after the tedious process of sinking a large shaft it was, of course, satisfactory to get the work finished. The company is now in a position to obtain a very much larger output than formerly, so that, with the cessation of heavy dead expenditure, and the immediate addition which can be made to the profits, the company's position is a very improved one. When the machinery now in course of construction is completed this colliery will be one of the finest in Lancashire, turing out from 1000 to 1200 tons per day; and, judging from past experience, yielding returns which bid fair to satisfy the most avaricious shareholders.

NEW SOUTH WALES COAL TRADE.—The output of coal from the Hunter Collieries for the four weeks ending December 7 amounted to 78,287 tons, of which 16,675 were shipped to Sydney and other New South Wales ports, 16,559 to Victoria, 8308 to South Australia, 1926 to Tasmania, 14,179 to New Zealand, 4960 to China, 3817 to the East, 3671 to San Francisco, 464 to Honolulu, 1948 were taken by steamers.

— *Sydney Morning Herald of December* 16.

D'ERESBY MOUNTAIN.—The Gorse lode, in No. 4 level, maintains its productiveness. The lode in No. 3 level has also improved, being now worth over 1 ton of lead to the fathom. Several hundred tons of stuff are now ready for the crusher, and regular and substantial returns may be expected immediately the dressing appliances are completed.

MONYDD GORDDU.—The meeting of this company, reported in another column, was an important one in the history of the company. It seems that since the last meeting a magnificent course of ore has been cut in the 24 fathom level. A resolution was passed authorising the issue of 5000*l.* worth of 10 per cent. debentures, exchangeable for shares at the option of the subscribers. All present at the meeting expressed their readiness to take their proportion.

CWM DWYFOR.—A special general meeting was held on Tuesday, when in order to provide funds for driving the deep adit level it was decided te issue 2000 of the 9995 unallotted shares as preference shares, to be offered in the first instance to the present shareholders.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for December is 16. They have consumed 2491 tons of coal, and lifted 17·6 million tons of water 10 fms. high. The average duty of the whole is, therefore, 47,700,000 lbs. lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Dolcoath—85 in. ..... Millions	56·9
Mellanear—76 in.	65·1
Mellanear—Gundry's 80 in.	53·3
West Basset—Thomas's 60 in.	50·0
West Wheal Frances—58 in.	52·8
West Wheal Seton—Harvey's 85 in.	60·9
West Wheal Seton—Rule's 70 in.	55·5

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt; it then forms an accumulating useful work of reference.

THE DIVIDEND MINES OF 1877.—We are compelled to postpone the publication of Mr. Ashmead's very interesting and comprehensive Tabular Statement until next week's Journal.

AZTEC—"G. L." (Middlesborough).—We do not know the exact address of the gentleman named, but a letter for him, sent to the care of the Aztec Mining Company, San Francisco, California, with a request that it should be forwarded, would doubtless reach him. Perhaps some correspondent will answer your enquiry "whether since the beginning of June, 1867, any company or association has been formed, or whether funds have been otherwise provided for working a property described to me as the San Francisco (1800 ft.) and Savannah (1500 ft.) ledges, situated at Etna, Trinity District, Humboldt County, Nevada, and containing valuable argentiferous lead ore?"

SIR,—I shall feel obliged if any of the readers of the Journal can give me the address of Mr. T. Rosewarne, the Mining Broker, as I have something of importance to communicate to him.—C. W.

THE SUPPLEMENTARY SHEET.—We have received occasional complaints, and of late a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

Received,—"C. and S." (Eureka): We will endeavour to forward, as requested—"W. T." (Cork): We shall be glad to hear—"Shareholder" (Llanrwst)—"Shareholder" (Hingston Down) should forward his letter to the directors—"One Hundred Shares," we believe to be mistaken on several points. He should attend the next meeting, and obtain precise information—"W. F." (Leeds)—"Constant Reader" (Glasgow)—"Shareholder" (Richmond): The letter was inserted in last week's Journal—"R.W.S."—"P.T." (Manchester)—"Inventor" (Torquay): We shall be glad to have the particulars—"F. G. S." (Edinburgh)—"J. B." (Rock-Boring Machinery)—"An Original Shareholder" (Grogwinion).

*** A pressure on our space has compelled us to postpone the letter from Mr. W. Ward, in reply to "Fair Play," on the Great West Van matter—the letter from Mr. R. Symons on the St. Austell District—the article and engraving descriptive of Messrs. Parkes and Weston's Single or Compound Acting Steam pump—On a New Method of Balancing the Engines used in Winding from the Deep Shafts of Westphalia—"Empressario" on Mining in the East—Capt. John Mufford on the Tasmanian Tin Fields—On Boring for Coal in Kent—Colliers and their Claims, &c.

IMPORTANT NOTICE—REDUCTION OF POSTAGE ON THE "MINING JOURNAL."—In consequence of the new POSTAL CONVENTION, which came into operation on July 1, the postage of the *Mining Journal* to many countries will be reduced to one fourth. Henceforth the subscription will be 1*l*. 10s. 4d. per annum (39 frs.), postage included, for the following countries. The amount will, if desired, be collected at the subscriber's residence at the end of each year. The subscription continues until countermanded:—Austria, France, Belgium, Denmark (including Iceland and the Faroe Islands), Egypt, Germany, Gibraltar, Greece, Heligoland, Italy, Luxemburg, Netherlands, Norway, Portugal (including Madeira and the Azores), Roumania, Russia, Servia, Sweden, Switzerland, United States, Malta' Turkey, Morocco, Tunis, and the Canary Islands. Spain 1*l*. 19s. (50 frs.)

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, FEBRUARY 2, 1878.

COAL-CUTTING MACHINERY.

It is somwhat remarkable that during the last year or two but little has been heard as to the progress made in the introduction of coal-cutting machines into our collieries. At one time, not so very long since, the subject created a great deal of interest in nearly all mining circles, and considerable correspondence ensued as to the relative merits of different machines that had been tried at several coal mines. All this we thought had quietly died out without hope of resuscitation, and we have just been rather agreeably surprised to have found that such is not actually the case, for it appears the matter was taken up by the Midland Mining Engineers' Association, who appointed a committee to inspect the various machines and report as to their capabilities. This has been done, and the report in every way complete and interesting, has been issued. Before going into details, we may remark that the value of a machine over manual labour in cutting coal consists in the greater rapidity with which the work is executed, and the little waste that is made in the operation, so that the production of a given quality is obtained at a much less cost than by hand. The coal itself is also brought down in much larger pieces, whilst the danger incident to "holing" by hand is altogether removed. One of the principal drawbacks, however, appears to be the cost in the first instance of conducting the motive-power, in all cases we believe compressed air, from surface to the workings below. A couple of years since, however, Mr. HURD, of Wakefield, patented an invention for compressing air in any part of the mine, and could this be carried out one of the greatest difficulties to the general adoption of machinery for under-cutting coal would be removed, but we are not aware that the invention has been practically tested at any place. But we do know that where machines are now at work there are 700 or 800 yards of piping required, and, of course, this will go on increasing as the coal is taken away. Yet with this undoubted costly item in connection with machinery worked by compressed air in our mines it has been found that the outlay in the first instance is soon repaid by the saving effected in every other way. At the present time it does not appear that there are more than four or five different patented machines in operation, and these are, we understand, principally confined to Lancashire, Yorkshire, and the North of England, although they are capable of cutting the hardest coal we have, and while a man with a pick can make but little impression.

Of the machines at work the best known probably is that of the Messrs. FIRTH, of Leeds, which is a pick worked by a bell-crank lever, the action being exactly the same as that used by a miner when engaged in undercutting, and has been at work for several years at the pits of the West Ardsley Coal and Iron Company, near Leeds. It was invented so far back as 1861 by Messrs. DONNESTHORPE, FIRTH, and RIDLEY, but several improvements since then have been made by Mr. FIRTH, and his son Mr. S. FIRTH. The other machines are on the rotary principle, do the work very well, and like the pick do not require the attendance of a skilled mechanic. All of the machines, it may be said, could be set to work readily where the workings have been laid out on the long-wall system, and so take the place of the men at once. Compressed air also is advantageous, more particularly in mines in which there is a good deal of gas given off, seeing that the ventilation is improved at the working face by the discharge of the cylinder full of fresh air at each stroke of the machine. From the enquiries made it appears that the machines of Messrs. FIRTH weigh from 15 to 16 cwts., and cost about 150*l* each, exclusive of the royalty. From 25 to 30 are now at work in Durham, Yorkshire, Derbyshire, Warwickshire, &c. At the West Ardsley Collieries there are eight machines, with three air-compressors, which not only drive them but eight smiths' fires and four "special" pumps. The No. 1 steam cylinder is 20 inches in diameter, and the air cylinder 18 inches; No. 2 steam cylinder 22 inches, and air ditto 20 inches; and the No. 3 steam cylinder 17½ inches, and air ditto 22 inches, the strokes per minute being respectively 37, 37, and 27. The air is conveyed to the machines by means of 600 yards of 2-inch pipes. The diameter of the machine cylinder is 7 inches, the length of the stroke 12 inches, and giving from 50 to 90 strokes per minute as required. One of the machines has cut as much as 20 yards in half an hour, but the average has been put down at the rate of 28 yards an hour. Whilst the party we have alluded to was down the pit one machine ran 43 minutes, during which it cut 20 yards to a depth of 3 ft. 2¾ in. This shows the value of the machine as against hand work, for a man in the same seam would not cut more than from three to four tons in the course of an ordinary day, the difference in favour of the machine as against the man being computed at 1s. 7d. per ton. In the same colliery the Cannel coal seam is so very hard that it cannot be cut by hand, yet the machine brought it down with comparative ease, cutting through a stratum full of pyrites. The cost of a plant, including two boilers, steam engine, ten coal-cutting machines, pipes, receivers, fixings, and all other requisites is estimated at 5000*l*.

Of the rotary machines, that of WINSTANLEY and BARKER, of Manchester, patented in 1870, has made considerable headway, several of them being at work at Ince Hall, Tyldesley, Atherton, Platt-lane, and some other collieries in Lancashire, as well as at mines in South Wales, Yorkshire, France, and Germany, there being no less than 24 at work. The machines made weigh from 15 to 20 cwts., and the cost is about 150*l*., exclusive of the royalty. At the Platt-lane Collieries one of the machines has been at work about four years, and has given, it is said, every satisfaction. There are two cylinders to the machine, each 9 in. in diameter, the length of the stroke being 6 in. To convey the air to the workings there are 350 yards of 4-in. pipes, 150 yards of 3-in., and 250 yards of 2-in. The air-compressor is 16 in. in diameter, and the steam cylinders the same, but there are other engines in the pit to be supplied with the motive-power besides the coal-cutters. It appears that 45 lbs. of steam pressure will compress air up to 70 lbs. In the ordinary seam of coal the machine will undercut 14 or 15 yards a depth of nearly 3 ft. per hour, each machine being calculated as being equal to 20 men. As is claimed for all our coal-cutters, a great saving is effected by the quantity of large coal brought down, that by the machine being fully two-thirds large, against half coal and half burgee by hand, in a thin seam so hard that it could scarcely be worked by hand.

Messrs. GILLOTT and COPLEY'S is a well-known Yorkshire rotary machine, and one of them has been in operation at the Wharncliffe Silkstone Colliery, near Barnsley, for two years, in the Parkgate and another seam, which are worked by long-wall. The patentees are both practical mechanics, and have devoted a great deal of time to perfecting their machine, which has obtained a good reputation where tried, there being now about 14 at work. Unlike other patentees, Messrs. GILLOTT and COPLEY charge 200*l*. for each machine, and ask for no royalty. The weight of the machine is from 14 to 15 cwts., and the maximum quantity of work done is stated to be 24 yards per hour. The depth of the holing is 3 ft. 4 in., and the height 3 in. The cutting is let by contract at 6½d. per lineal yard, and two men work the machine and lay the road. The price paid for getting the coal in the Parkgate seam by hand is 2s. 4d., against 1s. 7d. per ton by machine, and in another seam 3s. 2d. by hand and 2s. 6d. by machine. The coal is worked by long-wall, banks being from 30 to 200 yards long, and a great proportion of what is machine cut is large, an advantage which belongs to all the inventions brought out for superseding hand-work in the most laborious and dangerous part of the miner's calling.

The machine patented by Messrs. BAIRD and Co. is heavier than the others, the one at Elemore Colliery, Hetton, in the county of Durham, weighing 27 cwts., the cost being about 250*l*., there being no royalty. It is worked by compressed air, there being 1564 yards of 6-inch piping and 200 yards of 5-inch pipes. The coal cut is about 5 ft. 8 in. in thickness, the floor being strong clay, with ironstone. The line of cleavage is north and south, and the machine cuts in exactly the opposite direction, and the coal is chocked after being cut, so that when the chocks are drawn the coal comes over by the weight of the superincumbent strata. In some instances, it appears, the mode of working is by hand hewing the first time over, when pillars are left standing 60 yards north and south, and 20 yards east and west. These are afterwards entirely worked off by the machine, the length of the face being about 120 yards. The coal is cut to a depth of 2 ft. 8 in., the height of the hole being about 2¾ in. The result is that there is 12 per cent. more round coal by the machine than by hand, whilst on the average 15 yards are holed in an hour. From the particulars we have been able to give with respect to the various coal-cutting machines now in work in different parts of the kingdom, it will be seen that they have many advantages when compared with what can be effected by hand, so that they should be looked upon by our colliery owners as of the greatest commercial importance. Were they to come into more general use we should hear very little about strikes on the part of our colliers, seeing that in cutting by machine an ordinary man can perform the necessary work; but where taken kindly to the miners would be ensured against accidents by falls of coal or roof, by which so many lives are annually lost. The working places would also be much healthier, seeing that a less extent of working faces would be open, and the air, having a shorter distance to travel, would become less impregnated with gas. Of course there is the first outlay to be looked at, which is certainly heavy, but in an ordinary colliery that would soon be recouped, and after that there would be a large margin of profit. In the present state of the trade, when coal is so plentiful and profits so very small, the cutting machine appears to hold out advantages which colliery owners should not be slow to avail themselves of, and this we think is plainly shown by the statement we have made as to what has been done at various places.

OUR COAL ABROAD.

We have now precise and detailed information in illustration of the movement of our coal and coke to foreign countries and British colonies last year. The total exports of the year were 15,358,828 tons, to which must be added 3,661,552 tons shipped for the use of steamers engaged in the foreign trade, so that the entire quantity of British coal which left our shores in 1877 was 19,020,380 tons. The corresponding shipments in 1876 were 19,863,601 tons, and in 1875 17,823,165 tons. The shipments accordingly received a check last year, although they were still upon a larger scale than in 1875. In 1874 the total shipped was 17,049,341 tons. It is probably not too much to say that in one form or another we are now sending 20,000,000 tons of our coal away every year; and assuming this to be the case, our coal exports have much more than doubled during the last two decades. If this result is witnessed in a period of generally admitted commercial depression, what further progress may not be anticipated when better times return, as return we suppose they will some day? Everything seems to indicate the probability of a continued growth in our coal exports, for our neighbours are making more and more use of steam-power, while they do not exhibit any very great inclination to turn their own coal resources to much account. Whether this state of things is really to our advantage is, as we have more than once observed, a moot question; but, be this as it may, we must take the world as we find it, and not as we would exactly wish it to be.

France continued to be last year our best external customer for coal. We sent the French 2,982,372 tons in 1877, while the corresponding exports in 1866 were 3,250,564 tons, and in 1875, 2,706,210 tons. Last year's figures will be found to exhibit a considerable advance upon those for 1875, but they show a falling off as compared with 1876. This result is largely attributable, no doubt, to the check given to French commerce and enterprise last year by the prolonged conflict with the Chamber of Deputies, in which Marshal MACMAHON unfortunately became involved. To Germany we sent 2,029,238 tons in 1877, the corresponding shipments in the same direction in 1876 having been 2,278,905 tons, and in 1875, 2,172,384 tons, With the restoration of peace and orderly government in Spain, the demand for our coal has been expanding in that country, notwithstanding that the extraction of coal from the soil of Spain is increasing upon the whole. Thus, in 1877 the Spaniards took 883,871 tons from us, the corresponding shipments in 1876 having been 762,569 tons, and in 1875, 693,196 tons. Our shipments of coal to British India are also increasing. In 1877 they stood at 896,174 tons, while in 1876 they did not exceed 759,855 tons, and in 1875, 615,345 tons. Russia took 1,044,374 tons of coal from us last year, notwithstanding the disorganisation which must have been occasioned in Russian life and business by the great conflict with the Ottoman Porte in which the CZAR engaged in the spring of 1877.

While the decline in our coal shipments last year as compared with 1876 was 843,221 tons, the falling off in the value of the coal exported last year was much more considerable. Thus the value of the direct exports last year was 7,828,497*l*., as compared with 8,904,463*l*. in 1876, and 9,658,088*l*. in 1875. It will be seen that the value of the direct exports in 1877 was 1,075,966*l*. less than in 1876. The reduction indicated by these figures in the selling price of our coal would probably have imparted some impetus to the demand for it but for the pressure of other opposing influences, such as the outbreak of war between Russia and Turkey and the political deadlock in France. In British India, where the laws of supply and demand were left to work their ordinary results last year without let or hindrance, it will be seen that the consumption of English coal was rather materially increased in 1877.

DEFAULTING COMPANIES.—The announcement of the intended action of the Board of Trade in respect to those joint stock companies failing to file returns has created a little excitement in some quarters. Up to the present time company mongers have done pretty much as they liked in the matter of filing returns. It appears to have been the custom to register a project, and then leave all further detail, except the grasping of as much promotion money as possible, to providence. If the company arrived at a sufficiently advanced stage to actually commence business returns were in due course filed, but if on the contrary there was nothing done, or the business was on a limited scale, no returns were filed, and the project died an unnatural death, inasmuch as it was never wound up officially. The books of the Companies Registration Office are filled with the names of companies of this sort, but no doubt the enforcement of the penalties attending the omission of returns will remedy this in future.

JOINT-STOCK COMPANIES' RETURNS.—The Board of Trade has given notice that it has been determined to enforce the punctual filing of returns and notices required to be rendered to the Registrar of Joint-Stock Companies under the various sections of the Companies Acts, 1862 and 1867, and to proceed for the recovery of penalties incurred in cases of neglect to comply with the provisions of the law. The Registrar has been instructed to prepare a list of companies in default, in order that proceedings may be instituted against such companies if the returns in arrear are not forthwith sent in to the Registrar at his office, Inland Revenue, Somerset-house.

COAL AND IRON IN THE UNITED STATES.—There has been a fair business passing in steel at Pittsburgh, and it is expected that the business of 1878 will exceed that of 1877, although it was larger than that of any preceding year. In consequence of its cheapness American steel has supplanted iron for many purposes. The importation of foreign steel has also been almost entirely stopped, as foreign makers are no longer able to compete with American firms. The demand for all kinds of pipe has fallen off rather materially of late at Pittsburgh, owing to the cold weather which has prevailed. A fair business, has, however, been done for the season, and prices have experienced little change. There has been a good demand for scrap iron at Cleveland, Ohio, with a growing scarcity. Old rails cannot be obtained in any quantity at the same centre, although there is an active demand for them at $23 per ton. Pig-iron has been dull at Boston, with a light demand. Bar-iron has continued unchanged. At Chicago a feeling prevails among consumers that pig-iron has reached its lowest point. At Cincinnati, also, the pig-iron market is improving, and a fair demand is anticipated. The coal trade has remained in a somewhat stagnant state, coal being purchased merely to supply the immediate requirements of consumption. Orders are stated to be pending at New York for some large lots of steel rails. The Philadelphia and Reading Coal and Iron Company has shipped a quantity of rails to Brazil.

THE COMSTOCK MINES—INCOME OF ONE OF THE "BONANZA KINGS."—The following comparison has been made of the fortunes of the two richest men of the civilised world (the Duke of Westminster and Baron Rothschild) and Mr. John W. Mackay, who not more than 10 years since worked as a miner. The whole of his colossal fortune has been obtained from the Comstock Mines. The table shows a heavy balance in his favour:—

	DUKE OF WESTMINSTER.	ROTHSCHILD.	MACKAY.
Capital	£16,000,000	£40,000,000	£55,000,000
Per year	800,000	2,000,000	2,750,000
Per month	60,000	170,000	200,000
Per day	2,000	5,000	7,000
Per hour	90	200	300
Per minute	1½	4	5

BORING OPERATIONS IN CUMBERLAND.—The Maryport Hematite Iron Company have arranged to take over in a few months the Ellenborough Colliery, and they intend to commence boring operations in the neighbourhood of this colliery with a view of opening out a new pit on the opposite side of a large fault, which cuts through the working of the Ellenborough pit; the indications so far are satisfactory. Lately several further proofs have been given of the wide space covered by the Cumberland coal beds.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Jan. 30.—The workmen at the Penrhyn Slate Quarries have retaken their bargains for a month, subject to the new regulations as to holidays, to which some of them recently objected. A shocking accident, by which two persons were killed, is reported from the Caer-Michael Slate Quarry, Llanberis. A man named Ellis came into the machine-house, which also seems to be used as a cooking-house, with some balls of dynamite. One which he was in the act of tempering fell to the ground and exploded, killing a youth named Williams, who was boiling water for the men, and so mutilating Ellis that he died shortly afterwards. Another man narrowly escaped. The inquest is adjourned for the attendance of the Government Inspector of Mines. If dynamite can be safely used in quarrying operations with ordinary care, should not a special building be provided at all quarries where it is used for the purpose of its preparation for use, and should not the work of preparation for the whole quarry be placed under the charge of a responsible man? If, on the other hand, the use of this explosive is so dangerous that men could not be found to assume this responsibility, should not the use of dynamite be prohibited?

Mr. Thomas Savin, the owner of the traction engines that ply between Llangynog and Porthywaen, appeared on Friday before the magistrates at Llansilin to answer to a charge brought against him by the surveyor of roads for that part of Denbighshire for allowing the chimney of the engine to smoke, contrary to the statute. It was shown that anthracite coal was used, and that every effort was made to comply with the law. The surveyor admitted that if he had observed only the least curl of smoke he should have summoned the defendant. The magistrates very properly dismissed the case, observing that it was impossible but that at feeding times a little smoke should escape. I wonder what the law supposed chimneys were for except to carry off smoke in some form. Another charge was that there was not a smooth space of 9 in. on the wheels. The defendant showed that the width of the wheels was greater than that required by law, but formerly that one part of the wheel was not flush with the other by nearly ¼ in.; the Bench fined Mr. Savin 1*l*., but granted a case for a higher court. Surely it is not by petty vexatious strainings of the law like this that a great industry is to be stifled. It is a fact that the people of the valley of the Tamar are supplied with coal by these engines at 1s. per cwt., whereas formerly they paid 2s. 6d. Other things are reduced in proportion. The slate quarry, too, with which the engines are connected employs nearly 100 men, where otherwise there would be no staple industry. The ratepayers may, therefore, be content to pay a little more for the repairs of their roads. The solution of the difficulty, however, is a tramway, and if the annoyance felt by the great landowners will lead them to see their duty to the district in this matter the traversing of the roads by the traction engines will not have been in vain.

Owing to a scarcity of labour in the Llanrwst district a number of Cornish miners have been introduced. It has been suggested by a writer in the Times that the men out of work in South Wales may find employment in the slate quarries of North Wales, where labour is scarce. I am not so sure of this. In the first place, mining in a slate quarry is a different thing from mining in a colliery; and in the second place, I do not think there is a scarcity of slate quarry labour.

The paving sett and stone quarry formerly worked by Mr. Kneeshaw, at Penmaenmawr, is about to be worked by the owner, Mr.

Darbishire. Mr. Kneeshaw has recently opened a similar quarry nearer to Bangor.

The "little company" that was forming to work the upper coal seams at Ifton seems to be giving way to a larger company, whose object is to complete the winnings of the deeper coals, towards which the last company sank some splendid shafts. Many of the colliery sidings are full of loaded wagons, but, on the whole, a fair trade is doing at all the collieries at, of course, very low rates.

If the ore at the Cambrian Mines is only as abundant as the circulars relative to it that are flying over the whole of this district the owners have a fine property.

REPORT FROM CORNWALL.

Jan. 31.—After the events of the past week we may well hesitate before making any attempt to forecast the immediate future. When we last wrote, in spite of the large arrivals announced from Australia, matters had a decidedly hopeful look, and there was every reason to believe that an improvement would shortly commence. But that very night down came the Ministry to Parliament, and made a declaration which was tantamount to a statement that we were on the verge of plunging into the most disastrous war Europe has seen for many a long year—a war which, in all probability, would not cease before every nation on the Continent were embroiled. What wonder then that all manner of stocks and securities dropped. What wonder that with the uneasiness in the public mind which foreshadowed this coming event tin should be sent down to a lower figure than we have ever had recorded before. Since then we have heard that war is not intended, and the vote of supplies asked for is pressed on a vote of confidence in the Government. We have nothing to do here with party politics, and therefore have no comments to make on the course which events have taken. All we shall say is this—that in the present temper of the public mind, liable to rush from one extreme to the other at a moment's notice, there will be no prospect of business of any kind assuming a settled basis until the preliminaries of peace between the two belligerents are fully signed. Till then we may be quite certain that low prices will continue to rule; we may even see a lower depth touched than that which has already been reached, and till then those who are wisest will sell as little as possible. Even the actual outbreak of war could hardly make matters worse than they have been during the past few days.

The good work of pushing on the operations of the various boring machines now in use in the county is progressing satisfactorily. At Carn Brea Capt. Teague has entered into a twelvemonth's contract with the Beaumont Drill Company to open up the deeper levels, and Dolcoath is to be supplied with a new and very powerful air-compressor. Elsewhere hand-boring machines are to be tried. It will be remembered that a machine of this kind, driven by two men and worked by compressed air, was shown by Mr. Jordan at the last Polytechnic exhibition, and appeared to have great capabilities.

Considerable excitement was caused at Redruth by an attempt to blow up the house of Captain Goldsworthy with dynamite, a few days since, and though the police have been actively on the alert no definite clue to the perpetrators of the outrage has as yet been discovered. Happily, though the house was injured, no one was hurt. Such outrages as these are essentially un-Cornish, and there are reasons for believing that this one may be traced to a man who has returned from America. The American mining districts are very bad training schools, and many a man has come back to the Old Country from them far worse than he went out in point of character, however he may have fared in pocket.

So Ding Dong is at length stopped. This notable old mine, which has been worked for centuries, and the name of which carries one back to the earliest days of "tin bounding," has had a hard fight for existence, but has at length had to succumb. One by one the old landmarks of mining disappear—may we hope in this case, as in others, to come again to the front with the advent of better times. It will be long, however, in all probability, before the name of Ding Dong is again heard.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Jan. 31.—The amount of work doing at the various collieries throughout South Staffordshire is not increasing. Never before, perhaps, was so little activity displayed. The small demand for pig and finished iron prevents ironmasters from ordering coal to any large extent, and the mildness of the season has kept the demand for household fuel under the average. Added to this prices are low, working expenses are heavy, and hours short. Profits are insignificant, and in many cases loss has taken place instead of profit. No streak of light is at present visible in the cloud that overhangs the Pig-Iron Trade. It had been hoped that 1878 would have brought with it an increase in the demand, but it has not. The demand is as dull as it could well be. Over 100 furnaces are out of blast, yet the supply is in excess of customers' requirements, and stocks are increasing every week. The importations from other districts have the effect of keeping prices from rising. The mills and forges are barely running even half time. Buyers are trying to place their orders at a substantial reduction as the result of the new wages arrangement, but makers display a bold front in resisting such offers. They affirm that all the help which they will receive is needed to partially recoup them for the losses they are sustaining. The Swan Garden Ironworks will not be re-started until Monday week next, as extensive alterations are being made in the machinery.

In their own interests the Mines Drainage Commissioners have adopted a wise course. They have determined to withdraw a clause in the proposed new Bill, which empowered them to take the place of municipal and other local corporations in enforcing the Rivers Pollution Act against manufacturers and others who polluted streams. The local bodies in the district had determined to organise an opposition in Parliament to the objectionable clause.

An examination for managers' certificates of competency under the Coal Mines Regulation Act was opened in the Wolverhampton Town Hall, on Tuesday. Applications have been received from 22 candidates living in different parts of the country, 19 of whom put in an appearance. The subjects of examination were:—(1) Elementary chemistry as applied to mining; (2) general knowledge of machinery as applied to colliery purposes; (3) arithmetic, surveying, pit sinking, and laying out of collieries; and (4) underground management, ventilation, and timbering. Mr. David Peacock was the examiner in practical mining, Dr. A. Bostock Hill (Birmingham) in chemistry, and Mr. John Davis (Wolverhampton) in practical engineering. At the commencement of the proceedings the Mayor (Mr. David Kendrick) expressed to the candidates his pleasure at seeing so many of them. The institution was in every way a good one; and to such examinations they were, he believed, largely indebted for the recent praiseworthy accomplishments in the mining scientific world—he referred more particularly to the victories that had been won in connection with deep mining. He warmly encouraged the candidates, and recommended any who might not be successful in the present instance to come up for examination on the next occasion. Mr. W. Blakemore, secretary to the Board of Examiners, was present throughout the day.

The Chinese Envoy, attended by his suite, who had been visiting the manufactories in Birmingham, on Saturday visited the Round Oak Ironworks of the Earl of Dudley. They were much interested in the Smith-Casson gas puddling furnaces, the working of which was at their request fully explained by Mr. Smith Casson, the inventor and patentee, and manager of the works. Afterwards the distinguished visitors descended one of the Earl's collieries, and at the close of their inspection conveyed to Mr. Smith Casson their warm thanks for the courtesy he had shown to them.

The condition of the coal and iron trades of North Staffordshire is unaltered upon the week.

SOUTH STAFFORDSHIRE IRONMASTERS' ASSOCIATION.—The annual meeting of members was held at the Queen's Hotel, Birmingham, on Thursday, Mr. J. P. Hunt presiding. The report stated that the rate of puddlers' wages remained the same as fixed by Mr. Chamberlain in April, 1876—8s. 3d. for puddling, and 6d. for extras, until Jan. 14, 1878, when the reduction of 7½ per cent. was made on millmen's wages, and 9d. per ton on puddlers' wages. The wages of blast furnacemen were reduced 10 per cent. in May last. A deputation waited upon the Home Secretary in July with reference to the certificates required for children before commencing work, and the result was that in the new Bill recently issued a fresh clause had been inserted, which, though not all that could be desired, would afford some relief. The report and statement of accounts having been adopted, Mr. Hunt was re-appointed Chairman for the next three years. The scrutiny of the voting papers, made by Mr. Fowke, showed the following to be the committee for 1878:—J. Bradley, and Co., W. Barrows and Sons, the Chillington Iron Company (Limited), the Earl of Dudley, S. Groucutt and Sons, W. and G. Firmstone, Brown and Freer, Hingley and Sons, J. Bagnall and Sons (Limited), New British Iron Company, Phillip Williams and Son, and the Osler Bed Iron Company.—A meeting of the blast-furnace proprietors was afterwards held, and it was resolved to make no change in the present rate of wages, but that individual propretors should be left to make any alteration in respect to premiums or perquisites they might consider necessary.

TRADE OF THE TYNE AND WEAR.

Jan. 30.—There is little change to note in the state of the Coal and Coke Trades, but a slight improvement in the demand for house coal has occurred, owing to the severe cold weather which has set in. In Durham most of the pits are working fairly, and those producing good steam coal have improved, as part of the trade formerly supplied by the Northumberland steam coal works has been secured by them. Some of these works are making full time; but, as a rule, the Durham collieries are not doing this. There has been much activity in the coal and other trades at Seaham lately, and the shipments of gas coal especially have been large. This little port, which belongs to Earl Vane, is very favourably situated for coal shipment from the large collieries at Seaham, Silksworth, &c. There are also bottle works here on an extensive scale, and the port is a rising one. At Trimdon one of the seams lately sunk to—the Harvey—is to be stopped, and 125 men and boys received their notices on Monday. A local strike has occurred at the Medomsley Colliery, in West Durham. The masters, who are not in the Coalowners' Association, issued notices for a reduction, and the men have come out, and they are to be supported by the Durham Miners' Union. It was supposed that the Union organisation would prevent local strikes, and in connection with the system of arbitration would prevent all strikes; but the state of trade, with a constantly falling market, appears to upst all these calculations—indeed, the action of the Trades Unions in a falling market appears to have the effect of producing strikes—as, if there was free trade in labour, the wages would, of course, fall as the produce of the mines was reduced in value.

The local iron trade is in a very dull state; the plate-works of Messrs. Cook and Hillman-Teams, Gateshead, have been stopped, owing to pecuniary difficulties. A large business was done here in plates and sheets. At the Consett Ironworks another furnace has been blown out. There are six furnaces here, and this is the third that has been put out. These works are still comparatively brisk, as the men are at work four days per week.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.—A general meeting of members will be held on Saturday, when a number of gentlemen are expected to be elected as members, and afterwards the business to be brought before the meeting is varied and interesting. The following papers will be read:—(1.) "On a Method of Registering the Ventilation of a Mine," by Mr. Henry Hall, H.M.'s Inspector of Mines.—(2). "On Mechanical Aids in the Economical Production of Coke," by Mr. W. Harle. The following papers will also be discussed:—(1). "On Cooke's Ventilating Machine," by Mr. Wm. Cockburn.—(2.) "On the Advantages of Centrifugal Action Machines for the Ventilation of Mines."

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

Jan. 31.—Notwithstanding the great depression which has overhung the staple trades of late, it is satisfactory to find that the dividend of the Rhymney Railway Company—one of the most important mineral lines of the district—will be at the rate of 6½ per cent. per annum for the half-year ending Dec. 31 last. This makes with the dividend of the previous half a distribution at the rate of 5¾ per cent. for the year. If the contemplated new line to the Rhondda Valley is carried out, as there is every reason to believe will be the case, then the Rhymney will be further benefited. A great deal of distress prevails throughout the district; and as the staple trades are still depressed, there appears to be no abatement, although strenuous efforts are being made to stem the tide of privation and suffering. There is no improvement in the iron industry, and affairs are so unsettled with regard to the Eastern Question that buyers are, doubtless, holding back orders, which a firmly established peace would cause to be given out. As it is now, those works which are going are on the hand-to mouth principle. The iron rail department is especially dull, and the bar department is also exceptionally quiet, little being in hand except local requirements. Satisfactory, however, it is to see the recent development of the steel industry. The demand for steel rails is increasing, and although those works which produce this commodity are not fully employed, they at least have a fair amount of work in hand. The Rhymney Iron Company desire to obtain a loan of 35,000*l.*, on which they guarantee 6 per cent., for the purpose of increasing the manufacture of steel rails at their large establishment. The Tin-Plate Trade is comparatively unaltered, and there is about the average amount of work doing. Prices have not yet risen. Clearances of iron have been on a larger scale during the week, and nearly 3000 tons have been forwarded to Bombay, and some smaller parcels have gone to Brazil and Spain.

The Coal Trade is not over brisk, but last week shipments increased to a fair extent. A moderately good business is doing in steam qualities, while for house there is a little better demand; for the former prices are rather firmer. Work is scarce at many of the pits. The Newport Abercarn Colliery is gradually increasing the output. The patent fuel department is characterised still by dulness, but shipments have slightly increased.

In the case of the Llynvi, Tondu, and Ogmore Company the Vice-Chancellor, in the Chancery Division, has made an order *ex parte*, restraining the landlord from selling under a distress put in upon the property of the company. The Vice-Chancellor added that he did not order the landlord to go out of possession.

The Japanese Ambassador has visited South Wales, and has been shown many things of interest, and in the event of Japan requiring anything which our staple industries can supply his visit to Cardiff and the district may not be without its fruit. The steel corvette, built for the Japanese Government by the Milford Haven Shipbuilding Company, has been tested, and found to work well. She was completed at Cardiff, and took in coal there.

The Alexandra (Newport, Mon.) Dock Company have abandoned for the present year their new Bill for connecting their railway with the Brecon and Merthyr system, but it is understood that next year the matter will be again brought forward. A timber float is to be constructed in connection with the dock, which will, doubtless, increase the trade of the port, and facilitate the importation of timber.

At Tredegar, two engine drivers at the Wainilwyd pits, Ebbw Vale, have been charged with neglecting their duty. They left the pumping engine and caused damage not only to it but to the pit, where the water accumulated. Merchant was fined 5*l.* and the costs, and Miller was dismissed. At the Caerphilly petty sessions, Mr. Hugh Begg, manager of the Black Vein Colliery, was charged with not providing proper ingress and egress to the colliery. He was fined 5*l.* and costs.

Mr. J. W. Waits, chief engineer, and Mr. W. A. Richards, manager in the melting-house, have each been presented with a silver cup by the employees at the Landore (Siemen's) Steel Works, they having left employ of the company.

In the House of Commons the standing orders with regard to the Taff Vale Railway and Tredegar Water and Gas Bills have been complied with.

REPORT FROM THE NORTH OF ENGLAND.

Jan. 31.—The resolution arrived at by pig-iron makers last week, that they would continue to maintain until they met again the prices that have now been current for six or seven weeks, tended to the restriction of business on Tuesday at the weekly iron market. The actual business done was very trifling. Merchants have not now much iron at their disposal, and consumers are more and more dependent on makers for the supply of their requirements. The latter have certainly taken the most effectual action with a view to carrying out their plans. They have reduced the number of furnaces in blast until the supply is not now far from being abreast of the actual demand. The Consett Iron Company alone have extinguished no fewer than three furnaces, each capable of producing about 500 tons a week, so that the production of this one firm has been contracted to the extent of 1500 tons weekly. It is expected that prices will not now be allowed to suffer further decline, and it is quite on the cards that if the Eastern Question is speedily settled prices may of themselves take an upward range. Plate manufacturers have now had to complain for some months of a miserably inadequate profit on their business, and they have this week held a meeting with the view of determining on a uniform price that will afford them a fairly good remuneration. This is the first time that any movement of this character has taken place among the plate manufacturers, and as they are exposed to competition from other districts it might seem on the first blush as if it were simply beating the wind to force up prices artificially. But no other district has heretofore been producing ship plates so cheaply as that of Cleveland, and it is, moreover, in favour of the latter district that it now produces something like three-fourths of all the ship plates manufactured in the country. There is, therefore, a probability that plate manufacturers may succeed by combination in establishing a higher range of prices, and if they can only get 2s. 6d. a ton more than now they will be found in much better case.

The wages question is the finished iron trade has recently been coming prominently to the front. The manufacturers in the Cleveland district find that the selling prices of finished iron have fallen so largely that a further relief in wages is indespensable, and they are encouraged in looking for this relief by the award given in reference to the wages of Staffordshire ironworkers. The matter, however, will not be finally determined for a short time, the existing rate of wages being fixed until the end of March.

Statistics just issued, under the authority of the Cleveland Mineowners' Association, show that the total production of ironstone in that district during 1877 was about 6,250,000 tons, being, in round figures, a decrease of 250,000 tons on the output of the previous year. The Cliffe, Stanghton, Kilton, and Skelton Mines have been closed during the greater part of the year.

In the Durham Coal Trade there have recently been one or two local disputes which, however, are now settled. The collapse of the steam coal trade of Northumberland, in consequence of the suspension of labour in that county, continues to affect the Durham coal trade only in a very immaterial degree. The bulk of the orders diverted from Northumberland are going either to Scotland or to Wales, and chiefly to the latter district. Prices are without change.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Jan. 31.—In no branch of trade has there been any improvement to note, and in several localities considerable distress exists, necessitating the opening of soup kitchens and appeals to the public for subscriptions. In the lead mining districts, where the men have long been subsisting on very low wages, matters go on much as usual, and there has been in them no demands on the charity of the well-to-do. For a considerable time past, however, the lead mines have turned out a much less quantity of ore than in former years, and this cannot be entirely attributed to exhaustion, for there is still ground that, in the opinion of competent judges, could be profitably worked, and abandoned mines that it would pay to re-open provided there was a sufficiency of capital to have the best machinery and appliances introduced, for many of the places that were opened out a few years since were given up because those connected with them had no money, and in several instances were only ordinary miners. The production of ironstone is considerably less than it might be, but important fields of Northamptonshire yielding an abundant supply at a comparatively low cost leads to less dependence being placed on the local stone. Most of the collieries are only working three or four days a week, and for some time to come there does not appear to be much likelihood of a change taking place for the better, yet the number of mines is on the increase, and sinkings are being proceeded with in various districts that must tend to greatly increase the existing surplus of coal we now have, unless there is a very great change in the state of the iron trade, and in most other industries as well.

Something like an average tonnage of house coal has been sent from Clay Cross, Tibshelf, and some other places to the Metropolis, but the trade is getting a good deal divided, for colliery owners fully appreciate the importance of such a market, and the facilities there are for reaching it by railway. The Great Northern on Monday commenced running minerals and goods from Derby over that portion of the line which is completed, but it is not expected that it will do much injury to the passenger traffic of the Midland between Nottingham and Derby, the route being a very circuitous one. It will, however, divert a good deal of mineral traffic, and that is what the directors of the Great Northern had in view when they went to Parliament for the line. The iron trade remains in much the same state as when last noticed, there being still about the same production of pig. The foundries, taken altogether, are rather quiet, with the exception, perhaps, of those of the Staveley Company, that have a long-established reputation for several specialities, including gas and water pipes, cylinders, &c., so that the works are often quite active when others are doing comparatively little. Several of the collieries of the company have been doing well, and the men find that they are now better off than any of those who belong to the Miners' Association, whilst they also enjoy advantages that are entirely unknown in other districts.

In Sheffield distress still prevails amongst the ironworkers, but it is fully met by the liberality of the public, and committees and private individuals are indefatigable in visiting and finding out cases to be relieved with provisions, clothing, and bedding. Trade itself is much as it has been, the only exception being the makers of Bessemer rails, who are now in possession of some very large orders for Russia that will take some time in clearing off. Armour plates are undergoing a great change, and there is every appearance that those made entirely of iron will be superseded by a mixture of iron and steel plates, one on top of the other. From the Atlas and Cyclops Works plates of this description have just been made on a patented principle, and sent to the Government Yard at Portsmouth to be tested. Crucible steel is in but moderate request for general purposes, but some of the houses are doing tolerably well in axles and wheels. At two or three of the works a good business is being done in some descriptions of cutlery for America, the colonies, and Germany. Foundry material has undergone but little change of late, but at most places they have been able to keep their hands fairly going.

In the Rotherham district it is expected that the Northfield Works, where the puddlers refused to accept a reduction of wages, will shortly be opened, and work resumed. House coal is in fair request for the London and other markets, but not sufficiently so as to keep the pits fully employed, so that at most of them they are only going about four days a week. There is now some talk of a reduction of miners' wages, seeing that the price of coal is so very low that profits are almost out of the question; this is more particularly the case with respect to the Metropolis, where the competition is so very active, not only as regards the inland coal but the sea-borne as well, that consumers can now purchase lower than at any period since the early part of 1871. Steam coal does not go off very well, and stocks at some places are still large, whilst at some collieries only so much coal is raised as is required. In gas nuts there is a fair tonnage being sent away, but there has been no improvement whatever with respect to engine fuel, slack, or smudge, whilst scarcely so much coke is required for the works in Sheffield and South Yorkshire generally.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

During the past week the market has been quiet, owing to the fortnightly settlement intervening, and particulars of the continuation business then done are given below. Attention, also, is still greatly taken up with political matters, a large number of investors apparently preferring to wait till the Eastern difficulty is satisfactorily disposed of, though there must always be more or less investments going on, owing to the inducement offered by the current low quotations for all metal and mineral securities, and if the reduction in the Bank rate to-day of 1 per cent.—to 2 per cent. from 3, at which it was fixed on the 10th inst.—is the result of confidence in the political future an improvement in business very soon is probable.

In shares of iron and coal concerns Lochore and Capeldrae are wanted at ¼ advance; Bolckow, Vaughan, A, also ⅛ higher, while Glasgow Port Washington are reduced ¼; also Ebbw Vale and Monkland each ⅛. There is some enquiry for the 8 per cent. (pref.) of Newport Abercarn, but the Chapel House 7½ per cent. debentures continue to offer. Owing to the partial failure of the last scheme to raise capital by 10 per cent. debentures, the 12 per cent. original preferences of West Mostyn are offered at a further reduction, 4; but it is understood a plan is maturing whereby the company will get into a settled state by the necessary capital being subscribed, in which case some demand for these shares is not improbable. Ambergate are at 4; Andrew Knowles and Son, 1 prem.; Bolckow, Vaughan, A, 55 to 55¼; ditto, 100*l.* paid, 109½; and ditto, B, 34; Chapel House, 2¼ to 3; Henry Briggs, A, 13½; Leeds and Yorkshire, 3; Llay Hall, 7¾; Llynvi, Tondu, and Ogmore, 5½; Nant-y-Glo and Blaina (def.), 1¾; New Sharlston (pref.), 3¼; Norwegian Titanic, 2; Tibbington, ¼; Thorp's Gawber Hall, 2½ to 3; Turnbridge, 9; Tredegar, A, 10; West Cumberland, 12¼ dis.; Whitwick 6 per cent. (pref.), 10½.

In shares of foreign copper concerns there has been less business doing. Capo are reduced 10s. per share, and Tharsis 2s. 6d. At the settlement a "back" was again paid on Tharsis shares, indicating that the demand for them is still in excess of the supply. The coupons on the Panulcillo Company's debentures, due June 15 next, are now being paid on presentation, under discount at the Bank minimum rate of the day. Kapunda remain at 1s.; Panulcillo, 25s. to 35s.; Rio Tinto 5 per cent., 56¾; Yorke Peninsula, 5s. to 6s. 3d. In shares of home mines Glasgow Caradons have been done at 1s. advance, owing to the favourable report issued; the new shares remain at 12s. 6d. to 15s. The Berehaven Mine meeting is to be held on Feb. 4. Tin shares dull and lower, except South Condurrow, which are scarce. Lovell shares offered. Lead shares have been more dealt in. Rookhopes have become weaker, owing to the surprise felt at the disclosures made in the correspondence of this Journal. West Tankerville also lower, as it is not known that costs have been lower while the sales have been less, consequently the capital must be nearly all gone, though the mine is reported to be looking very well, particularly in the bottom levels. The Combmartin, South Molton Consols, and West Combmartin undertakings are coming into more favour with investors, as it is thought their small capitals form a safety against the mines being in the hands of peculating promoters. Rhynd Alyn, also a few more of the Flintshire mines, are considered to be safe to hold for the same reason. Rampfylde are at 5s., Bryn Alyn 8, Bodidris 15s., Cambrian 50s., Caron 47s. 6d., Glenroy 18s., Great Laxey 20¼ to 21¼, Killifreth 2s. 6d., Leadhills 90s. to 92s. 6d., Medlyn Moor 27s. 6d., Monydd Gorddu 40s., North Hendre 5½, North Laxey 5s. to 7s., Parys Mountain 11s., Rhosemor 20s., South Roman Gravels 5s., Tankerville 80s. to 85s., and West Tankerville 12s. 6d. to 15s.

In shares of gold and silver mines, Richmond is raised 5s., the week's run being $90,000. It is always a difficulty to pronounce an opinion on a property at such a distance as the Richmond is, and in any case a long time must elapse before complete confidence can be held in the practical management. This mine has of late developed extraordinary richness, and whether there is to be a rise in the price of the shares, such as appearances would seem to warrant, will to a great extent depend upon the views set forth in the directors' forthcoming report, not only as regards the permanency of the mine, but also as to what the future of the litigation it has been annoyed with is likely to be. Frontino and Bolivia made a profit of 140*l.* on the month ending November last, while the Antioquia Company has not got out of its losses yet, the same month for them being 213*l.* on the wrong side, and the report on the mines is very encouraging, so there is no cause to doubt the Messrs. White's prediction that the property will still yield a fair return to the proprietors. Australasian mines—Santa Barbara and Pitangui—are all in demand. Antioquia is at 13s. Cedar Creek, 5s. to 7s. Chicago, 35s. Eberhardt, 7½. Emma, 2s. 6d. Flagstaff, 16s. 3d. Frontino and Bolivia, 42s. 6d. Hunter Consols, 10. I. X. L., 4s. to 6s. Javali, 7s. 6d. Pestarena United, 6s.; ditto (pref.) 18s. 9d. Port Phillip, 12s. 6d. to 13s. South Aurora, 3s. to 5s.

Oil companies' shares are more offered. Uphall are reduced 7s. 6d. per share, Young's Paraffin, 3s. 9d. Oakbank, 1s. 6d. Dalmeny offered at 8½. Price's Patent Candle, 11 to 12. Runcorn Soap and Alkali are changing hands at 5¾ dis.

In shares of miscellaneous companies business is quiet. Phospho-Guano are quoted ex div. at 9½. Birmingham Nut and Bolt are at 56s. Milner's Safe, 7½. New Sombrero Phosphate, 7¾. North of England Wagon, 90s. In shares of chemical companies there is nothing new, prices are—Hanson's Sewage, 10. Langdale's, 93s. 9d. Lawes, 7 to 7½. Newcastle, 40s. The 7 per cent. (preference) shares of Lawe's Company are still wanted.

On Contango-day (Monday) the following were the rates of continuation current: Contangos—1d. on Glasgow Caradon, 1d. on Glasgow Port Washington, 1d. on Huntingdon, 2¼d. on Marbella, ¼d. on Monkland Iron, 2d. on Oakbank Oil, 1¼d. even on Richmond, 9d. on South Condurrow, 1¼d. on Uphall, 3d. on Young's Paraffin. Backwardation—1s. 9d. on Tharsis. On comparing the making-up

prices fixed to-day with those of the previous occasion for the shares mentioned, the fluctuations during the account thus shown are—Tharsis have advanced 8s. 9d. per share, Marbella and Tharsis (new) each 5s., also Glasgow Caradon and Huntington each 1s.; Uphall, on the other hand, are 15s. lower, Young's Paraffin 7s. 6d., Glasgow Port Washington and Monkland Iron, each 5s., and Oakbank Oil 1s. The following show no change: Canadian Copper, Monkland (pref.), Omoa and Cleland, Richmond, and South Condurrow.

GLASGOW CARADON CONSOLIDATED COPPER MINING COMPANY (Limited).—The directors of this company have issued their eighteenth annual report and accounts for the meeting on Feb. 4, of the results for the year 1877. The report is generally considered very satisfactory, as the company is in a position to derive the fullest benefit whenever the copper market recovers to fair prices again. The sales of copper ore were 3836 tons, realising 11,427*l.* at a profit of 1162*l.* net. The fall in the price of copper, and especially in the price of ore, has made a great difference in the profit, as the average price realised is 12s. per ton less than in 1876, or equal to 1700*l.* for the year, while had the standard of 1875 been maintained the sales would have been full 3700*l.* more. In these circumstances the directors considered it prudent to restrict the output in order to preserve the property of the company till a favourable change takes place in prices. A dividend of 1s. per 1*l.* has been recovered from the Governor and Company of Copper Miners in England, and it is hoped the balance (10*d.*) will also be got. The amount thus recovered, 314*l.*, with the gain on working this year before named, and 811*l.* balance from previous year, make the amount now available for distribution 2287*l.*, from which a dividend of 2½ per cent. is recommended for the year, leaving 1 917*l.* to carry to profit and loss new account. The directors refer with pleasure to the agent's annual report. The reserves are fully equal to the last or any former year, and the mine continues to open out satisfactorily; not only are the extensions of the levels opening up good ground, but the indications formerly given of the ore holding in depth have been realised so far as the sinking has gone, and the indications of its still holding down to even deeper levels continue as favourable as before. The agents also state that the new shaft and the erections connected with it are about completed, and the working cost for the future will, therefore, be considerably reduced.

J. Grant Maclean, Stock and Share Broker.

Post Office Buildings, Stirling, Jan. 31.

SEPARATING TIN FROM TINNED PLATES.

The process of separating tin from tinned plates, scrap tin, or other tinned articles, or waste pieces of iron coated with tin, invented by Mr. A. Gutensohn, of Bow, consists in placing in a suitable vessel, preferably of earthenware, the tinned plate or scraps which are to be operated on, and then adding a sufficient quantity of muriatic acid to cover them. The strength of the acid may vary, but he prefers to use the ordinary commercial muriatic acid. When the tin has been thus sufficiently dissolved from the plates or scraps he draws off the acid, and applies it to a fresh supply of tinned plates or scraps, and he continues to repeat this process until the acid has dissolved all the tin of which it is capable. From this solution tin crystals (or crystals of muriate of tin) may be obtained in the usual way by evaporation. He then places in a vessel a small quantity of copper ore, or salt of copper (such as sulphate), the quantity of which may be varied, but which he prefers to be from 1 to 2 per cent. of the weight of tin scraps or plates, of which he adds a fresh supply until the vessel is sufficiently filled, and he then adds the acid saturated with tin, as above described, having first added to it about 2 per cent. in weight of liquid ammonia. By treating the saturated acid as above described with copper and ammonia, it can be again used for the purpose of dissolving fresh quantities of tin, and so on over and over again for a great number of times, copper ore or salt being added between each such treatment, and fresh ammonia as often as required, which will be after about every three or four fresh treatments. By this method he obtains a solution of muriate of tin very much stronger than that obtained by the ordinary process of treatment with muriatic acid without the additions as above described. From this solution crystals of metallic copper gradually precipitate. These he removes and exposes to the air, which by its gradual action produces marketable (green) copperas. To the remaining solution of muriate of tin he adds liquid ammonia, which precipitates insoluble oxide of tin, but he first preferably neutralises the solution of muriate of tin by carefully adding ammoniacal liquor (or gas water).

Another part of the invention consists in obtaining the oxide of tin, precipitated in the way just described, as free as possible from iron. For this purpose he adds to the solution of muriate of tin (neutralised in the way mentioned) about 1 to 3 per cent. by weight of a saturated solution of a permanganate of potash or of soda) which on stirring combines with the iron without affecting the tin, and in this way the oxide of tin retains not more than 1 per cent. of iron. After the oxide of tin has been precipitated, the remaining solution of muriate of ammonia may be sold, or the salt first crystallised out. He dissolves in diluted sulphuric acid the oxide of tin, precipitated as described, and from this solution he precipitates spongy metallic tin by adding metallic zinc in fragments or cuttings. The remaining strong solution of sulphate of zinc may be sold, or the salt may be crystallised out. The metallic spongy tin may be melted into ingots for sale.

SMELTING FINE ORES AND TAILINGS.

An improved smelting furnace and condenser for melting fine ores without conglomerating them as has hitherto been necessary has been patented by Messrs. Evans and Prescott, of Carson City, Nevada. The furnace is an upright or stack furnace, with the usual fire-brick linings, the body being made double, so as to form a water jacket entirely around the furnace, into which a constant circulation of water is maintained through a pipe at top and bottom. The furnace is made in a double cone shape, that form giving a large fire surface, and concentration of the ascending volume of heat. The fire-grate, ash-pit, and tuyere-pipe are of the usual character. There is a downward passage to conduct the molten metal into a crucible. The door through which fuel is supplied is a considerable distance above the grate, so that when the fuel is introduced it will fall upon the burning fuel in the grate. A large cylinder is mounted horizontally upon a suitable support opposite the upper end of the furnace. This cylinder serves as a flue and condenser both. The top of the furnace is closed tightly by a cover, from the centre of which a curved pipe leads into the end of the cylinder, and serves to conduct any fumes generated in the furnace, together with the products of combustion, into the cylinder. Each end of the large cylinder is closed by a head similar to a boiler head, and a pipe leads from the centre of the top of the furnace, and enters the cylinder head. Inside the cylinder are secured two partition plates or flue-sheets, one near each end of the cylinder, thus dividing the cylinder into three compartments, the middle one of which occupies a greater part of the cylinder. These sheets are connected by means of one or more flues or pipes passing through the middle compartment, but communicating with the end chambers. Water is admitted into the middle compartment through a pipe above one end of the middle compartment, and is allowed to escape through a pipe at the bottom of the cylinder, near the opposite end of the compartment, so that when the furnace is in operation a continuous circulation of cold water can be kept up through the chamber, for the purpose of condensing the fumes which attempt to pass through the flues. A smoke-stack or draft pipe is connected with the outer compartment of the cylinder.

The process of smelting fine ores and tailings consists in feeding them into the upright or stack furnace at some point near its upper end, and allowing them to fall through the upward ascending flame and heat, and drop upon the burning fuel on the fire-grate. To this end, therefore, the feed opening is near the top and at one side of the furnace. The fuel falls upon the grate, while the blast from the tuyere creates an intense heat inside of the furnace. As the heat and products of combustion rise upward towards the curved flue, the fine ore or tailings is showered by means of an automatic feeder through the opening, and descend through the upward rising heat until it falls upon the burning fuel, where the metallic portion soon becomes smelted, and runs off through the short pipe into the pot or crucible.

In smelting pulverised or fine ore, the condensing attachment need not be used unless the ore contains some metal which gives off vapours which it is desired to recover. But the chief use of the condenser is when tailings are being smelted. Tailings almost always contain a large percentage of quicksilver that escaped in the original treatment of the ore from which they are derived. Therefore, when the fumes from the tailings pass through the curved pipe they enter the first chamber of the cylinder. This is a dust chamber, where all that portion of the fine ore whose specific gravity has not been sufficient to carry it downward against the upward draft, will settle and be caught. The lighter and more volatile portion, together with the metallic fumes and products of combustion, will pass through the flues in the chambers. These flues being surrounded by cold water, the instant the metallic vapours enter them they will be condensed and precipitated, and the gravity of the particles will cause them to flow down through the vertical pipes into a receptacle prepared to receive them, while the products of combustion pass on through the smoke stack into the open air.

By this means the inventors claim to be able to smelt fine ore and tailings without preliminary preparation. The fine ore falling through the ascending draft and heat will become thoroughly oxidised, so that by the time it strikes the burning fuel it is ready to part with its metals, while the previous oxidation of the base metals will avoid any liability of its slagging. In treating tailings the inventors prefer to subject them to a concentrating process before submitting them to the smelting process, as they can thus get rid of a large proportion of the worthless stuff. This preliminary treatment, however, is not a necessity.

THE STUDENTS' GUIDE TO THE PRINCIPLES OF COAL AND METAL MINING.

The certificating of colliery managers has created the necessity for a text book of a different description from that which has been in general use amongst students, for the men who have to read for the examination are not of the character of ordinary students, and require a special description of knowledge. Whether coal is of vegetable or mineral origin is to them a matter of no importance whatever, and the various theories, the discussion of which afford men of science so large an amount of interest, is to the aspirant to the position of a certificated manager altogether unnecessary. The experience of coalowners goes far to show that scientifically trained certificated managers are in most cases useless ornaments in mines, whilst the hard-working practical man who has an acquaintance with scientific facts and principles only, and is unincumbered with scientific theories, may safely be entrusted to manage a mine economically and well, and no fear need be entertained as to his giving satisfaction both to the masters and the workmen. It is evidently with the view of producing men of the latter class that Mr. Bailes has compiled his Students' Guide,* and to judge from the five numbers which have already been published the work will precisely suit the requirements of a large number of the more intelligent classes of colliers, since it will supply them with ample scientific and general technical knowledge to enable them to satisfy the examiners, without rendering it necessary for them to trouble themselves with abstruse theories and hypotheses.

The adoption of the system of question and answer is probably advantageous, for it cannot be doubted that many fail to pass not so much from absolute inability to give the information demanded of them, but because being unaccustomed to answer examination questions they do not precisely understand the nature and scope of the subject comprised. To meet this Mr. Bailes gives such answers as would undoubtedly secure a good percentage of the marks. The second question for example—State briefly what geology teaches—will give a fair idea of the whole. Mr. Bailes answers it by stating that "Geology teaches the structure and history of the earth, divides its rocks into formations and series, describes their appearance, origin, life remains, and relative position, the changes they have undergone, and their commercial contents. It is of great service in mining, inasmuch as it points out in what formations and series coal, ironstone, and other useful minerals may be found, and prevents useless waste of time and money in searching for them where they do not occur." The subjects to be included in the work are given in answer to the first question—Give the principal subjects or divisions in the principles of mining—and from this there can be no doubt that it has been made as comprehensive as possible, for it embraces "geology, mineralogy, strength of materials, boring for explorations, sinking and securing of shafts, pumping, winding and hauling, blasting, ventilation, making and securing roadways, systems of working borings against accumulations of gas and water, dams, surveying, and crushing and dressing ores."

The work, which is well illustrated with lithographic plates, is to be completed in 39 1s. parts, and will certainly be a handsome as well as an extremely useful volume.

* "Students' Guide to the Principles of Coal and Metal Mining." By W. Bailes, certificated manager and Member of North of England Institute of Mining and Mechanical Engineers. Sunderland: J. G. Campbell and Co.

IMPERIAL MINING RIGHTS OF FOREIGN STATES.

The section of Mr. Archibald Brown's book* treating of this subject is not only interesting, but from the large amount of British capital invested in foreign mines likely to prove of great utility. In their general features, he says, the mining laws of the different foreign countries are not very dissimilar to each other, and they admit of a combined treatment to a considerable extent; but the details of foreign mining laws do not admit of any common treatment, being as numerous and as minutely particular as are the corresponding details of English mining law. In their general features these foreign mining laws are in many respects remarkably dissimilar to the English mining laws. Mining laws generally appear to have the Roman law as their principal and original source. In all lands that were subject to the Roman law the mines and minerals of every kind were originally retained in the Emperor as portion of his demesne, although the imperial rights were afterwards relaxed, and finally fixed by the decree of Gratian, and the confirmations of that decree that were made by subsequent emperors. As finally settled the Roman imperial mining rights excluded any rights or interests of the subject in respect of the gold and silver mines; but the imperial rights in the case of the other mines and minerals were measured by the Canon Metallicus, and subject to a royalty of usually one-tenth, these minerals were the property of the subject; the landowner mining in his own lands free of all other charge or render, and the adventurer mining in the lands of others upon render to him or them of a further proportion of the produce, which was usually one other tenth. Thus the English law presents several points of resemblance to the provisions of the decree of Gratian.

In France, Spain, and Italy, being the three chief countries in Europe of directly Latin origin, the laws of mine presents the following general features of similarity. The right of property and of possession is in the State and not in the subject, and the State may enter and work all mines, minerals, and quarries by its own servants, or (and this is the most constant practice) it may grant them as a concession either to the landowners in whose lands they are situate, or to any adventurers whatsoever, whether citizens or foreigners, upon certain terms, including a render to the State, and also compensation to the private landowner for surface damage. Thus in France, although by the Code Napoleon the landowner is declared to have the right to everything above and below the surface, and to have liberty to extract from his pits and quarries whatever produce they are found to yield, this is now declared to be subject to the statutes and regulations regarding mines. And under the principal statute the property in mines and minerals is declared to be in the State, and these properties cannot be worked excepting by concession from the State. The landowner or first discoverer even must obtain such a concession. But in practice the landowner is allowed to work mines and minerals within 100 ft. of surface. In Belgium contrary influences have been at work—the Latin jurisprudence has been largely introduced into the mining law of Belgium through the proximity of that country to France, and from the circumstance that the French law has at different times prevailed in Belgium, and on the other hand the Teutonic spirit of the people has asserted itself not ineffectively in certain provinces—for example, in Liége where popular mining rights analogous to the mining customs of Cornwall have been established, and in Hainault, where the private landowners have asserted privileges almost as exclusive as those of the landowners of England. But at present the working of Belgian mines is almost entirely regulated by modern statutes, which recognise the right of the Crown to grant concessions, the rights of the adventurer to work mines, paying compensation to the landowner for surface damage, and the preferential rights of the landowner to work in his own lands for his own benefit, subject only to the control of the State.

The successive mining ordinances of Spain represent the sovereign as laying constant and exclusive claim to all mines and minerals whatever, whether gold and silver or other and baser mineral substances, and wherever situate, whether in the public lands or in the lands of private owners. Since 1859 a concession is in all cases required, except for working stones and stone-like substances used for building purposes. But this legislation requires (apparently for the first time) the Crown grantee to make compensation to the landowner for surface damage. In Italy the law appears to be simply the decree of Gratian modified from time to time to extend the right of the governing prince. Under the mining law of 1859, which is applicable to the greater part of Italy, including the island of Sardinia, mines and minerals may be granted by the State as a concession, the grantee paying a fixed rent of 20 centimes per acre, 5 per cent. on the net amount of mineral produced, and also paying the landowner for surface damage. In foreign countries settled or colonised by Spain the general features of Spanish mining laws were introduced, and still to a large extent prevail. Thus in Mexico the law asserts in the sovereign or sovereign republic an exclusive right to every species of mineral, and grants that right to the subject by way of concession only; the various changes in the character of the Government have not even to the present day materially altered or affected the ancient law. Brazil presents the like general agreement of its mining laws with those of Spain.

In Germany, where liberty has been more vigorous, and the Emperor has not unfrequently allied himself with the people in opposition to the sovereign princes, we find that the imperial mining rights were not of the like extensive or exclusive kind which we have seen accorded to the sovereign in countries of an exclusively Latin origin, but yet presented unmistakable resemblances to those latter rights in very considerable degree. Frederick Barbarossa was the first emperor that distinctly formulated the imperial mining rights in Germany, and he appears to have accepted the decree of Gratian in its general feature, reserving one-tenth of the net produce to the State. The imperial rights in respect of mines appear to have become at some subsequent but uncertain date, probably by successive grants from the Emperior vested in the sovereign princes of the different kingdoms and principalities, and to have submitted consequently to many variations of amount in the different mining districts, but in each of them the mines and minerals of the country were maintained to be *inter regalia*. The sovereign princes also made concessions of the right of working them to adventurers generally, whether citizens or foreigners, the grantee rendering certain and uncertain amounts to the crown. In Prussia the mines and minerals are the property of the State, which the State may and does grant to private individuals, not necessarily the landowner nor even citizens of Germany, upon terms the principal of which are the payment to the crown of 2 per cent. of the mineral produce, and the payment to the surface owner of compensation for surface damage. But in certain cases adverse possession or other modes of acquisition has divested the right of the crown, and vested the mines and minerals in the private citizen or subject. In Austria the like general law prevails, the imperial mining rights having been admitted in the ancient laws, and being re-asserted in the modern legislation of the present century, excepting where adverse possession or other modes of acquisition, has divested the imperial rights, and excepting so far as the desire to encourage mining industry has made a difference in favour of the subject.

In the case of Russia, it is uncertain whether the Imperial mining rights at any time recognised the principle of the decree of Gratian; and this at least is certain, that at the present day the Imperial rights are almost precisely similar to the present rights of the Crown in Scotland, being confined to mines and minerals situated within the public domain alone. The private landowners have asserted an exclusive right to all mines and minerals, even gold and silver, within their own private domains. As to the two latter, the Government has the exclusive right of coinage, but this does not interfere with the ownership of the landowner in the mineral produce itself; consequently in Russia the State as to minerals within the public domain and the private landowner as to those within his own each independently of the other, grants or concedes mines either by lease or license at their own pleasure. In the United States of America the Government established by the declaration of independence of course acquired the position of that which it replaced, and the tenure of lands and minerals remained unchanged. But subject to that general ownership the individual States have each for itself regulated in a more particular manner the ownership of the precious and other minerals situate within the State; hence very considerable diversity prevails in the different States regarding the ownership of minerals. Thus in Pennsylvania the law, like that Russia and of Scotland, assigns the ownership in the precious metals, as in all other minerals, to the private landowner. In California, on the other hand, the mines of gold and silver, as in England and in the continental countries of Europe, belong in theory at least to the sovereign or Federal Goverment, but a grant of lands in that State by the Federal Governme t, unlike the corresponding grant in England, carries with it, as does the like grant by the State of Georgia of lands in Georgia, the precious metals and all other minerals. The mining law of the State of New York is almost precisely similar to that of England. In the other States of the Union there is corresponding diversity.

* "A Treatise on the Law of Mines and Minerals." By William Bainbridge. Fourth Edition. By Archibald Brown, Barrister-at-Law, M.A., B.C.L. London: Butterworths, Fleet street.—[Second Notice.]

SLATE AND SLATE QUARRYING.

The literature of slate and slate quarrying has always been extremely limited, although the subject is one in which a large number of persons are much interested. Hitherto detached papers, contained in the Transactions of scientific societies and a few pamphlets, chiefly reprints of letters originally published in the *Mining Journal*, have been all that have appeared concerning it, and most of these have long since ceased to be obtainable, so that the Treatise* just completed by Mr. D. C. Davies, F.G.S., has the field almost to itself. He remarks that the great and increasing importance of the subject, and of the trade connected with it, seemed to him to demand that an attempt should be made to treat the question with greater comprehensiveness and more minuteness of detail than it has hitherto received, and he expresses the hope that the practical man will not be the worse for reading so much of science as the book contains, and he feels sure that the scientific man will not despise the combination of science with practice, which he has attempted.

That it will be a permanently useful book cannot be doubted, since it contains a vast amount of information put together in a very readable form. He explains that to a greater or less extent slates, and thin slabs, which have been used for the purpose of slates, are obtained from the Llandeilo, Bala, and Wenlock groups, the principal slate-producing rocks being those which lie below the coal formation. In North Wales, which is by far the chief slate-producing country of the world, and to which most reference will be made, the slates are obtained from the Cambrian Lower and Upper, the Llandeilo, and the Wenlock strata, with possibly a few from the lower portion of the Bala group. The general character of the strata comprising these slate-bearing groups may be described as beds of pebbles, sand mud, and clay, each constituent prevailing in its turn. The beds were deposited in ages very far back, at the bottom of the sea, and in process of time they have been hardened into stone and lifted up so as to form dry land. Between these sedimentary beds there lie bands of harder matter that vary very much in thickness, and these hard rocks appear to have had a good deal to do in the process by which the slate rocks have been brought into their present position. It is the finer muddy portions of the sedimentary strata which by a succession of chemical and mechanical processes have become altered into slate. These beds contain abundant remains of former sea life which lie along the planes of the bedding, and which even in slates altered and cleaved may be discerned in the bands and ridges by which they are crossed.

With reference to the mineral composition of slate rocks, he points out that they occur in beds, and not in veins, as is commonly supposed. There is great variety in the materials of which a slate bed is composed. When flakes of mica enter largely into its composition it is called mica-slate, when talc is present it is known as talcose slate, when hornblende prevails it is hornblende slate. These varities, though used for various purposes, have not the commercial importance of clay-slate, from which common variety of the material all the roofing slates of commerce are derived. On an average it takes 20,000 lbs. weight to crush a cubic inch of slate. Its tenacity, and hence the power which thin plates of it have of sustaining great weight, is also considerable, the pre-eminence in this respect being accorded to the ordinary slates of North Wales. The ordinary colour of roofing slates is blue, of different shades, derived from the presence of protoxide of iron, whilst the red and purple varieties take their colour from peroxide of iron. Mr. Davies has made the discovery that peroxide of iron consists of equal parts of iron and oxygen, and that, therefore, it is not as chemists have supposed a sesquioxide; it is, probably, from the announcement of such discoveries as these that he remarks that the scientific man will not despise the combination of practice and science which he has attempted.

Into slates of a green colour iron less largely enters, and in combination with magnesia gives them their greenish hue. In soft black slates there is a good deal of carbonaceous matter and sulphide of iron in a decomposed state, finely disseminated throughout the mass. Referring to slaty cleavage, Mr. Davies explains the difference of opinion existing among those who have given attention to the subject, and he also describes the causes affecting slaty cleavages, the slate beds of the Lower Cambrian strata of North Wales and of Merionethshire, the slates of the Lingula flags and Tremadoc slates, of the Upper Cambrian, of the Arenig group, of the Llandeilo strata, and of the Wenlock group. He then devotes a chapter to the consideration of the slates obtained from other districts in Great Britain and Ireland and in foreign countries.

The succeeding chapters refer to the practical working of the quarries, and treat of such matters as the early history of a quarry, the explorers' method of discovery and so on, and supply many valuable particulars suggestive of the conditions of success, provisions of lease, royalty, and compensation, method of preparing the slate for sale, manner and cost of development, and, indeed, an enormous amount of sound practical information. The careful study of the volume will prove of great utility to all connected with slate quarrying, and will probably tend to secure increased profits from that class of enterprise, as it will permit of a much more accurate opinion being formed as to the chances of success of any given undertaking. The book is amply and excellently illustrated, and the author acknowledges that Mr. E. H. Davies, his son, has rendered him valuable assistance in the preparation of the plans and sections. The work is in every respect worthy of an extensive circulation.

* "A Treatise on Slate and Slate Quarrying—Scientific, Practical, and Commercial." By D. C. Davies, F.G.S., M.E. London: Crosby Lockwood and Co., Stationers' Hall-court.

FURNACES FOR SMELTING METALS.

A furnace constructed according to the invention of Mr. James Foley, of Liverpool, consists of a base plate of cast-iron or suitable material provided with a flange removeable in sections. This base plate carries a ring or flange provided with feet or supports, raising it slightly above the base plate. Upon the ring or flange is built or erected a furnace of brick or suitable material, by preference of vertical cylindrical form. Outside the furnace there is formed a cylindrical casing of wrought-iron or other suitable material resting on the base plate, and forming an air chamber round the outside of the brick furnace. The air space or chamber is provided with a ring or flange of cast-iron or other suitable material, which covers such air space and rests on the brickwork of the furnace. The furnace itself is provided with a cover, which may be made to slide or be otherwise removeable as required. Inside the air space or chamber, and near the top thereof, there is provided an internal pipe, which distributes the air from a blower or fan broadcast throughout such air space. The air is driven down through the air space, passes under the supporting ring on the base plate, and enters the furnace at the bottom, the waste gases passing off through a suitable outlet at the top of the furnace.

This self-acting tubular furnace requires no fire-bars; the fuel is first fed in at the top, the pot or crucible containing the metal is then inserted, after which more fuel is added; the furnace is then covered, the fuel ignited, and the blast applied. The supply of air passing through the air space becomes heated by contact with the brickwork of the furnace, and passes into the fuel in a heated state. When the blast or fan is not going, or for igniting or for removing molten metal, one or more sections of the flange of the base plate may be removed to give air, to ignite, or to remove spilt metal, as may be required. The pot or crucible may be placed or removed by means of tongs, or in any other suitable manner.

THE TIN TRADE.

	Dec. 31, 1877.	Jan. 31, 1878.	Jan. 31, 1877.	Jan. 31, 1876.
Straits and Australian, spot...Tons	8,220	7,980	7,616	5,686
Ditto, landing	371	288	254	352
Straits afloat	476	855	995	922
Australian, afloat	2,720	3,370	2,370	2,403
Banca, on warrants	1,172	1,484	1,460	1,113
Ditto, Trading Co.'s hands.	876	438	448	1,658
Ditto, afloat (by sailing vessels only)	194*	219	564	431
Billiton, spot	1,200	1,286	1,037	875
Ditto, afloat	1,450	1,125	1,200	1,000
Australian tin in Holland	550	550	730	—
Total ...Tons	17,229	17,593	16,674	14,440
Deliveries during the month in London	680	1,147	836	1,121
Ditto, Holland	496	461	433	310
Total ...Tons	1,176	1,608*	1,269	1,431
Prices of Straits	£86 0	£64 0	£73 10	£80 0

Shipments from Straits, in January ...Tons 825
Ditto, Australia, ditto ... 900†

	During 12 months ending Jan. 31, '78.	During Jan., '78.	During Jan., '77.
Shipments from Straits to London ....Tons	3,081	825	675
Shipments from Australia to London	9,368	900	625
Deliveries of foreign tin in London	10,926	1,147	836

* Also 442 tons overside to America.
† Estimated (owing to interruption of cable exact figure not known).

London, Jan. 31. A. STRAUSS AND CO.

We have to report a very dull market for tin during this whole month, and prices have again given way 1 fl. Transactions have been few and confined to immediate wants. Supplies do certainly continue abundant; on the other hand, prices have reached a low level, which those engaged in the trade should not lose sight of. The Dutch Trading Company's first sale in 1878 took place yesterday, when 18,106 slabs Banca were sold from 40 fl to 40¾ fl. average 40·35 fl.; and 3264 slabs Billiton were sold from 38½ fl. to 39 fl., average 38·80 fl. Banca has moved off satisfactorily, holders however being mostly very difficult sellers. The price declined from 41 fl. to 40 fl. Contracts for delivery *ex* January sale changed hands from 40¾ fl. to 40 fl. Since the sale there are buyers at 40 fl. Billiton has been dealt in somewhat more freely, the price declining from 40 fl. to 38½ fl., both for parcels on the spot and to arrive. After yesterday's sale 38¾ fl. has been taken. On Monday Feb. 11 a public sale of 10,000 peculs Billiton will take place at Batavia.

The position of Banca tin in Holland on Jan. 31, according to the official returns of the Dutch Trading Company, was—

	1878.	1877.	1876.
Import in January ...Slabs	4,061	14,370	1,293
Deliveries in January	8,117	7,311	4,541
Stock second-hand	47,506	46,660	35,616
Unsold stock	14,002	14,370	53,029
Total stock	61,508	61,030	88,645
Afloat ...Peculs	3,500	9,025	6,900
Statement of Billiton:—			
Import in January ...Slabs	9,429	6,600	800
Deliveries in January	5,768	7,463	4,719
Stock	42,171	29,756	25,760
Afloat ...Peculs	10,000	12,000	16,000
Quotation } Banca	40 fl.	44 fl.	50 fl.
Jan. 31. } Billiton	39	43	48¼

These combined returns of Banca and Billiton for 1878, compared with those for 1877, exhibit—A decrease of the import for January of 234 tons; a decrease of the deliveries for January of 25 tons; an increase of the stock second hand of 414 tons; a decrease of the unsold stock of 11 tons; an increase of the total stock of 403 tons; a decline of the quotation of Banca of 6*l.* 13*s.* per ton. The Government returns for the month of November are:—

EXPORT OF TIN FROM HOLLAND.

	November. 1877.	1876.	1875.	Eleven months. 1877.	1876.	1875.
Germany.....Tons	296	278	234	3041	3214	3523
England	—	64	29	326	348	468
Belgium	114	166	134	1573	2184	1548
France	6	48	22	549	559	398
Hamburg	56	43	15	458	423	386
United States	—	—	—	75	62	43
Other countries	69	26	13	517	501	502
Total	541	625	438	6539	7291	6868

Rotterdam, Jan. 31. EBELING AND HAVELAAR.

THE COPPER TRADE.

Arrivals here (Liverpool) during the fortnight of West Coast, S.A. produce—John Elder, from Valparaiso, 880 tons bars, 100 tons ingots. At Swansea—Tocopilla, from Tocopilla, 500 tons ores and 200 tons regulus. Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, we estimate at—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	1223	917	11,641	10	—
Swansea	3254	4273	1,985	—	—
Total	4477	5190	13,626	10	—

Representing about 16,867 tons fine copper, against 17,144 tons Jan. 15; 14,191 tons Jan. 31, 1877; 12,582 tons Jan. 31, 1876; 13,224 tons Jan. 31, 1875. Stock of Chili copper in Havre, 8450 tons fine, against 8790 tons Jan. 31, 1877; stock of Chili copper afloat and chartered for to date, 10,300 tons fine, against 15,000 tons Jan. 31, 1877; stock of foreign copper in London, chiefly Australian, 4800 tons fine, against 2717 tons Jan. 31, 1877.—*Liverpool, Jan. 31.* HARRINGTON, HORAN, AND CO.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Jan. 23	Great Laxey	100	£18 7 6	Treffry's Estate.
28	Pandora	20	10 15 0	Walker, Parker, and Co.
29	Foxdale	70	19 7 0	Nevill, Druce, and Co.
31	Wye Valley	25	11 9 0	ditto
	Grogwinion	100	11 15 0	ditto
	Llanidloes	15	10 19 0	ditto

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Jan. 26	West Roskear	64	£ 2 12 6	Swansea Vale Spelter Co.
31	Wye Valley	40	1 0 0	Villiers Spelter Co.
	Llanidloes	50	3 0 0	ditto

BLACK TIN.

Date.	Mines.	Tons c. q. lb.	Price per ton.	Amount.	Purchasers.
Jan. 24	West Godolphin	7 15 1 16	£36 0 0	—	—

COPPER ORES.

Sampled Jan. 16, and sold at Tabb's Hotel, Redruth, Jan. 31.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
West Tolgus	63	£8 2 6	South Crofty	47	£2 4 6
ditto	62	7 11 6	East Pool	38	3 11 0
ditto	60	4 18 6	ditto	21	1 12 6
ditto	56	7 6 6	Wheal Basset	23	4 12 6
ditto	55	5 3 6	ditto	20	6 11 0
ditto	50	2 19 0	Carn Brea	26	1 15 0
Mellanear	78	3 14 0	ditto	15	4 7 6
ditto	76	3 14 6	North Treskerby	31	3 17 6
ditto	71	3 13 0	South Roskear	29	4 7 0
ditto	66	3 17 6	Penstruthal	27	3 0 0
ditto	39	4 5 6	West Godolphin	22	7 17 6
West Seton	63	3 6 0	Champion's Ore	22	3 0 0
ditto	62	4 7 0	Roberts's Ore	14	3 6 0
ditto	35	3 19 0	Penberthy's Ore	13	2 17 6
ditto	30	4 0 0	Poldice	5	1 19 0
South Crofty	50	2 2 6	Stephens' Ore	5	1 5 6

TOTAL PRODUCE.

West Tolgus	346	£2119 7 0	South Roskear	29	£ 126 3 0
Mellanear	330	1253 6 6	Penstruthal	27	81 0 0
West Seton	190	735 17 0	West Godolphin	22	173 5 0
South Crofty	97	210 16 6	Champion's Ore	22	66 0 0
East Pool	59	169 0 6	Roberts's Ore	14	46 4 0
Wheal Basset	43	237 7 6	Penberthy's Ore	12	34 10 0
Carn Brea	41	111 2 6	Poldice	5	9 15 0
North Treskerby	31	120 2 6	Stephens' Ore	5	6 7 6

Average standard ... £ 88 13 0 | Average produce ... 8
Average price per ton ... £4 6 6
Quantity of ore ... 1273 | Quantity of fine copper 101 tons 11 cwts.
Amount of money ... £5500 4 6
LAST SALE.—Average standard ... £ 94 4 0 | Average produce ... 6¾
Standard of corresponding sale last month, £ 89 7 0—Produce, 8⅜

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	421½	£1722 3 6
Grenfell and Sons	264½	1273 3 6
Nevill, Druce, and Co.	215	1160 16 6
Williams, Foster, and Co.	223	762 1 6
Mason and Elkington	149	581 19 6
Total	1273	£5500 4 6

NO SALE on Thursday next, Feb. 7, or Thursday week, Feb. 14.

LIVINGSTONE CONSOLS.—We understand that the attention of the shareholders is likely to be called to a very important point in this property, which will, in all probability, materially influence the price of shares and benefit all concerned. The strong opinions expressed in favour of the property have been such as to give great confidence, and as a consequence the shares are firm.

SOUTH MOLTON CONSOLS.—The lode in the 12 fm. level is worth from 3 to 4 tons of silver-lead per fathom, and improving. The agent hopes to have the first sampling of the ore next week.

WEST ROSKEAR.—The mine sold on the 26th ult. 64 tons of blende, at 2*l.* 12*s.* 6*d.* per ton. The 12, driving west on the caunter lode, is presenting most favourable indications of a course of copper ore being shortly met with.

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J. T. EACHUS, Holywell.
JOHNSON and Co., Tower street, Dudley.
TODHUNTER and ELLIOT, Market-place, Douglas, Isle of Man.
J. C. AITKEN, 54, Bernard-street, Leith.
JOHN DONALD, 24, Belmont-street, Aberdeen.
WILLIAM WATSON, Main-street, Coatbridge.
ROBERT HAMILTON, Douglas-street, Dunfermline.
JOHN D. M'JANNET, Coney Park, near Denny.
CHARLES CUNNINGHAM, 81, Murray Gate, Dundee.
R. and J. CARSON 8 and 10, Corn Market, Belfast.
JAMES PIKE, 179, Strand Road, Merrion, Dublin.
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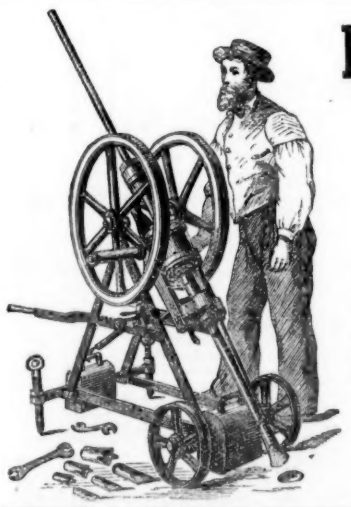

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"TIMES," November 29th, 1877.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
1500	Alderley Edge, c, Cheshire*	10 0 0	—		12 11 8	0 5 0	Jan. 1876
4000	Brookwood, c, Buckfastleigh	1 16 0	1	⅛ 1	3 16 0	0 2 0	Nov. 1875
2000	Bryn Alyn,* l, Denbigh	10 0 0	—		0 7 0	0 7 0	Jan. 1877
5400	Cashwell, l, Cumberland*	2 10 0	2¼	2 2¼	1 9 6	0 2 0	Aug. 1876
1000	Carn Brea, c, t, Illogan†§	36 7 6	41	39 41	308 0 0	1 0 0	Feb. 1874
2450	Cook's Kitchen, t, Illogan†§	24 4 9	2½	2¼ 3	11 17 0	0 7 6	Jan. 1873
10240	Devon Gt. Consols, c, Tavistock†*	1 0 0	3½	3 3½	116 15 0	0 5 0	July 1877
4296	Dolcoath, c, t, Camborne	10 14 10	32	31 33	112 1 3	0 5 0	Dec. 1877
5000	East Black Craig,* l., Scotland	5 0 0	—		0 10 0	0 10 0	Feb. 1877
[illegible]00	East Darren, l, Cardiganshire	32 0 0	—		235 10 0	1 0 0	Aug. 1876
6400	East Pool, t, c, Illogan	0 9 9	10	9 10	15 4 9	0 2 6	Dec. 1877
40[illegible]00	Glasgow Cara., c* [30,000 £1 p., 10,000 15s. p.]		1¼	1 1¼	0 13 4	0 0 6	Feb 1878
7500	Gorsedd and Merllyn Cons., l, Flint	2 10 0	5¼	5 5¼	0 5 0	0 5 0	Aug. 1877
15000	Great Dyliffe,* l, Montgom	4 0 0	3	2 3	0 2 6	0 2 6	Apr. 1876
15000	Great Laxey, l, Isle of Man*	4 0 0	22½	21½ 22½	23 3 0	0 10 0	Jan. 1878
615	Gt. Retallack, l, bl, Perranzabuloe	5 18 6	—		0 1 6	0 1 6	May 1876
6400	Green Hurth, l, Durham*	0 6 0	3	2¾ 3	1 15 0	0 3 0	Aug. 1877
20000	Grogwinion, l, Cardigan*	2 0 0	5	4 4½	0 14 0	0 2 0	Jan. 1878
9830	Gunnislake (Clitters'), t, c	5 5 0	2¾	2½ 2¾	0 13 9	0 1 0	Oct. 1876
1024	Herodsfoot, l, near Liskeard†	8 10 0	10½	9 10	62 5 0	0 15 0	Oct. 1872
60000	Holmbush, a, c, s-l, Callington*	1 0 0	1¾	1½ 1¾	0 4 6	0 0 6	Sept. 187[illegible]
2800	Isle of Man, l, Isle of Man*†	25 0 0	—		82 5 0	0 10 0	Feb. 1876
20000	Leadhills,* l, Lanarkshire	6 0 0	4⅝	4⅜ 4⅝	0 12 0	0 6 0	Oct. 1877
[illegible]00	Lisburne, l, Cardiganshire	18 15 0	75	70 75	584 10 0	1 0 0	Nov. 1877
14000	Llanidloes,* l, Montgomery	3 0 0	1¼	¾ 1¼	0 9 0	0 4 6	Nov. 1876
5120	Lovell, t, Wendron	0 16 0	2	1½ 2	0 17 6	0 1 6	Jan. 1874
9000	Marke Valley, c, Linkinhorne	5 3 6	⅞	¾ ⅞	7 15 0	0 2 0	Jan. 1876
10000	Mellanear Copper, Hayle*	2 0 0	3	2¾ 3	0 2 0	0 2 0	Jan. 1878
[illegible]000	Minera Mining Co., l, Wrexham*	5 0 0	18	16 18	67 8 2	0 3 0	Oct. 1877
20000	Mining Co. of Ireland, cl, c, l*	7 0 0	—		23 17 6	0 2 6	Jan. 1878
444	North Busy, c, Chacewater	9 9 6	5	4 5	1 10 0	1 0 0	July 1877
10289	North Hendre, l, Wales	2 10 0	—		1 12 6	0 2 6	Aug. 1877
6000	Pedn-an-drea Con., t, Redruth	0 8 6	6¼	6¼ 6¾	0 9 0	0 9 0	June 1877
5000	Penhalls, t, St. Agnes	3 2 6	⅜	¼ ⅜	3 13 6	0 2 0	July 1875
6000	Pennant, l, bar, North Wales*	5 0 0	5¼	5 5¼	0 5 0	0 5 0	Mar. 1877
45793	Penstruthal,* t, c, Gwennap	2 0 0	⅜	⅛ ¼	0 2 8	0 0 8	Nov. 1875
12000	Phœnix, & W. Phœnix, t, c, Link.§	5 7 3	5	4½ 5	2 9 6	0 4 0	Nov. 1872
18000	Prince Patrick,* s-l, Holywell	1 0 0	2¼	1¾ 2¼	0 14 0	0 1 3	Jan. 1876
10000	Red Rock,* l, Cardigan	2 0 0	2½	2 2½	0 4 0	0 2 0	Jan. 1878
12000	Roman Gravels, l, Salop*	7 10 0	8¼	7¾ 8¼	7 10 0	0 8 6	May 1877
512	South Caradon, c, St. Cleer	1 5 0	90	85 90	741 10 0	2 0 0	Dec. 1877
6123	South Condurrow, t, c, Camborne‡	6 5 6	9½	9 9½	3 5 0	0 7 0	Jan. 1878
12000	St. Harmon,* l, Montgom	3 0 0	3	1½ 2½	0 6 0	0 3 0	July 1877
1[illegible]000	So. Pr. Patrick,* s-l. (8000 sh. issued)	1 0 0	—		0 7 0	0 1 0	Oct. 1875
1[illegible]000	Tankerville, l, Salop*	6 0 0	4½	4 4½	4 17 0	0 5 0	Dec. 1876
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	13	11 12	50 8 6	0 5 0	May 1877
15000	Van, l, Llanidloes*	4 5 0	28	27 28	22 15 6	0 12 0	Jan. 1878
3900	W. Chiverton, l, Perranzabuloe†	12 10 0	14½	13½ 14½	55 10 0	0 10 0	Feb. 1878
1783	West Poldice, St. Day	10 0 0	15	13 15	1 19 0	0 4 0	July 1876
512	West Tolgus, c, Redruth	95 10 0	76	75 77½	25 5 0	1 10 0	Dec. 1877
2048	West Wheal Frances, t, Illogan	28 1 3	4¼	3¾ 4¼	3 12 6	0 5 0	Oct. 1872
12000	West WyeValley,* l, Montgom	3 0 0	4½	4 4½	0 12 0	0 3 0	Nov. 1877
1024	Wh. Eliza Consols t, St. Austell	18 0 0	—		15 10 0	1 10 0	Oct. 1877
2048	Wheal Jane, t, Kea	2 13 10	1⅝	1⅜ 1⅝	8 5 0	0 5 0	July 1875
4295	Wheal Kitty, t, St. Agnes	5 4 6	2½	2 2½	11 19 6	0 2 6	Dec. 1874
25000	Wh. Newton, a, c, s, t, Calstock*	1 0 0	5½	5 5½	0 8 6	0 4 0	Sept. 1877
80	Wheal Owles, t, St. Just§	86 5 0	125	115 125	522 10 0	4 0 0	Aug. 1872
6000	Wheal Prussia, t, Redruth	0 5 0	7	6½ 7	0 4 0	0 1 0	July 1877
25000	Wicklow c, sul, i, Wicklow	2 10 0	—		52 9 0	0 2 6	Mar. 1872
10000	Wye Valley, l, Montgomery*	3 0 0	2½	1¾ 2¼	0 10 6	0 4 6	Oct. 1876

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500	Alamillos, l, Spain*†	2 0 0	2	1½ 2	1 18 3	0 1 0	Oct. 1877
80000	Almada and Tirito Consol., s*†	1 0 0	⅜	⅛ ⅜	0 6 3	0 1 0	May 1876
20000	Australian, c, South Australia†	7 7 6	2	1½ 2	0 19 6	0 1 6	July 1877
10000	Battle Mountain,* c, (6240 part pd.)	5 0 0	—		0 10 0	0 10 0	Nov. 1872
15000	Birdseye Creek, g, California*	4 0 0	—	½ ¾	0 14 0	0 2 6	June 1874
12320	Burra Burra,* c, So. Australia	5 0 0	—		70 0 0	0 10 0	Oct. 1872
20000	Cape Copper Mining,*† So. Africa	7 0 0	34	32½ 33½	29 12 6	0 17 6	Dec. 1877
34433	Cedar Creek, g, California*	5 0 0	⅜	⅛ ⅜	0 5 0	0 2 6	June 1873
35000	Cesena Sul. Co., Romanga, Italy*	10 0 0	—		0 10 6	0 3 0	Aug. 1877
15000	Chicago, s, Utah*	10 0 0	2	1½ 2	2 8 0	0 4 0	Nov. 1876
65000	Colorado United, s-l, Colorado*†	5 0 0	2	1½ 2	0 13 6	0 4 0	Jan. 1875
10000	Copiapo, c, Chili* (£20 shares)	16 15 0	—		7 11 5	0 3 0	May 1877
100000	Don Pedro North del Rey*†	0 16 0	⅜	⅛ ⅜	2 5 9	0 2 0	Mar. 1872
23500	Eberhardt & Aurora, s, Nevada*†	10 0 0	7	7 7½	1 8 0	0 3 0	Dec. 1877
70000	English & Australian, c† S. Aust.	2 10 0	1¾	1¼ 1¾	2 15 9	0 1 0	Mar. 1877
50000	Flagstaff, s, Utah*	10 0 0	1	⅝ ⅞	4 2 0	0 5 0	July 1873
25000	Fortuna, l, Spain*†	2 0 0	6	5 5½	6 14 10	0 6 8	Oct. 1877
55000	Frontino & Bolivia, g, New Gran.*†	2 0 0	2½	1¾ 2¼	0 1 0	0 1 0	June 1876
30000	Gold Run, hyd.	1 0 0	—		0 2 4	0 0 4	Oct. 1872
68000	Kapunda Mining Co. Australia†	1 3 0	—		0 2 4	0 0 6	June 1873
20000	Last Chance, s,* Utah	5 0 0	⅞	⅝ ⅞	0 14 0	0 2 0	July 1873
15000	Linares, l, Spain*†	3 0 0	6½	5¾ 6¼	17 3 10	0 6 8	Oct. 1877
65000	London and California, g*†	2 0 0	¾	½ ¾	0 1 0	0 1 0	July 1875
7837	Lusitanian, Portugal*† (£5 sh.)	3 10 0	—		1 11 6	0 1 6	Mar. 1873
5000	Mamm. Copperopolis of Utah, c, s	10 0 0	—		0 5 0	0 5 0	Dec. 1872
5000	Mountain Chief, s, Utah*	10 0 0	—		0 4 0	0 4 0	Jan. 1873
10000	Pontgibaud, s-l, France†	20 0 0	26	24 26	25 8 0	1 11 0	Nov. 1877
[illegible]0000	Port Phillip, g, Clunes*†	1 0 0	¾	⅝ ¾	1 10 0	0 1 0	Jan. 1878
54000	Richmond Consols, s, Nevada*†	5 0 0	8¾	9 9½	3 16 6	0 7 6	Nov. 1877
40000	Santa Barbara,* g, Brazil	0 10 0	1½	1 1½	0 3 9	0 1 3	May 1877
120000	Scottish Australian Mining Co.*†	1 0 0	1¾	1½ 1¾	15 per cent.		Nov. 1877
60000	Scottish Austral. Mining Co., New	0 10 0	⅞	¾ ⅞	15 per cent.		Nov. 1877
112500	Sierra Buttes, g, California*†	2 0 0	1⅝	1⅜ 1⅝	1 18 0	0 2 0	Oct. 1877
60000	South Aurora, s, Nevada*	5 0 0	⅜	⅛ ¼	0 14 2	0 2 0	Nov. 1873
£253000	St. John del Rey*† (£5 stock & multiples dealt in)			315 325	½ year	20 p. ct. for	Dec. 1876
20000	Tolima, g, s* So. America	5 0 0	—		0 11 6	0 6 6	May 1874
25000	Victoria (London)*, g, Australia	1 0 0	¾	⅝ ¾	0 12 6	0 0 7½	Jan. 1878
15000	Western Andes, s,* New Granada	5 0 0	—		0 12 0	0 12 0	July 1876
21000	W. Prussian (5500 pref. sh. 10l. pd)	10 0 0	11¼	10¾ 11¼	1 8 0	0 4 0	Jan. 1878

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Last Call.
5000	Anguilla Phosphate, West Indies (4000 issued)	10 0 0	—		Fully pd.
12000	Argentine, g, Argentine Republic	5 0 0	1½	½ 1½	Fully pd.
3000	Bellavista, s, Peru* (£10 shares)	10 0 0	—		Fully pd
30000	Blue Tent, hyd., California	5 0 0	3¼	3 3¼	Fully pd.
49935	Chontales, g, s, Nicaragua*†	2 0 0	¾	⅝ ¾	Fully pd.
16000	Condes of Chili, s-l	5 0 0	1½	¾ 1¼	Fully pd.
20000	English Australian, g, Victoria*	1 0 0	⅞	⅝ ⅞	Fully pd.
35000	Excelsior Hydraulic Gold Washing Co., California*	6 0 0	—		Dec. 1871
1[illegible]0000	Exchequer, g, s, California*†	1 0 0	4s.	2s. 4s.	Fully pd.
40000	Holcombe Valley, g,* California	1 0 0	—		Fully pd.
8000	Hornachos,* s-l, Spain	10 0 0	12	11 12	Fully pd.
12000	Hultafall,* l, bl, Orebro, Sweden	5 0 0	5	4½ 5	Fully pd.
12000	Hunter Consolidated, s-l, Utah	10 0 0	10	9 10	Fully pd.
20000	Imperial Brazilian Collieries, Brazil*	5 0 0	—		Fully pd.
[illegible]0000	I. X. L., g, s, California*	1 0 0	6s.	4s. 6s.	Fully pd.
50000	Javali, g, Nicaragua*	2 0 0	⅜	¼ ⅜	Fully pd.
3500	La Manche, l, Newfoundland	10 0 0	—		Fully pd.
12000	Lanestosa,* l, z, Viscaya, Spain (£2 shares)	1 15 0	—		Mar. 1876
75000	Malabar, g, Colombia* (67165 issued)	1 0 0	¼	⅛ ¼	Fully pd.
40000	Malpaso, g, Colombia* (7400 pref. shares, fully paid)	1 0 0	½	¼ ½	Fully pd.
12000	Menzenberg, c, Honnef, Germany*	5 5 0	—		Fully pd.
4588	New Bensberg, i, l, Germany	5 0 0	—		Nov. 1876
66000	New Quebrada, c, Venezuela*	5 0 0	2¼	2 2¼	Fully pd.
20000	New Zealand Kapanga, g, Coromandel*	5 0 0	1¼	1⅛ 1¼	Fully pd.
3000	Oregon,* g, Oregon, U.S. (preference shares)	4 0 0	—		Fully pd.
50000	Panulcillo, c, Chili*† (£80000 debentures)	4 0 0	1¾	1¼ 1¾	Fully pd.
80000	Pestarena United, g, Italy*†	3 0 0	⅜	¼ ⅜	Fully pd.
50000	Providencia and New Rosario, s, Mexico*	1 0 0	—		Fully pd.
60000	Rica, g, Colombia* (40000 issued)	1 0 0	¼	⅛ ¼	Fully pd.
£2,181,000	Rio Tinto,* c, Huelva, Spain	Stock	57	56 58	Fully pd.
100000	Rossa Grande, g, Brazil*† (£1 shares)	0 19 0	⅛	⅛	July 1872
[illegible]0000	Russia Copper, Orenburg and Ufa*†	10 0 0	1½	1 1¼	Fully pd.
25000	San Pedro, c, Chili*	2 0 0	⅜	⅛ ⅜	Fully pd.
10000	Silver Plume, s, Colorado*	1 0 0	—		Fully pd.
30000	Tecoma, s, Utah*	10 0 0	½	⅜ ½	Fully pd.
20000	Thornhill Reef, g, Australia*	1 0 0	—		Fully pd
43174	United Mexican, s, Mexico*†‡	28 15 3	2¾	2¼ 2¾	May 1875
14000	Utah, g, s-l, Utah*	5 0 0	—		Fully pd.
25000	Virneberg, c Rheinbreitbach, Germany* (£2 shares)	1 10 0	1½	1¼ 1½	Jan. 1878
75000	Yorke Peninsula, c, South Australia	1 0 0	½	⅜ ½	Fully pd.
40000	Yorke Peninsula, c, South Australia Preference	1 0 0	1	¾ 1	Fully pd.

§ Have made calls since last dividend was paid.

FOREIGN AND MISCELLANEOUS STOCKS, BONDS, LOANS, AND TRUSTS.

	Closing Prices.	
Argentine, 1868, 6 per cent.	69	71
Bolivia, 6 per cent.	22	23
Brazilian, 1865, 5 per cent.	89	91
Chilian, 1866, 7 per cent.	101	103
City of Providence, 5 p.c. coupon bnds	97	99
Egyptian, 5 per cent. pref.	52¼	52¾
Do., unified debt, scrip	30	30½
Do., 7 per cent., V.M.L.	66	68
Do., 9 per cent. guar.	69	71
Do., 7 per cent., K.M.L.	41	43

	Closing Prices.	
Foreign and Col. Gov. Trust, 6 p. ct.	65	70
Do., 5 per cent., 2d issue	50	55
Do., 6 per cent., 3d issue	50	55
Do., 1872, 4th issue	42	47
Do., 1873, 5th issue	44	49
Peruvian, 1870, 6 per cent.	12	13
Do., 1872, 5 per cent	10¼	11
Russian, 5½ per cent. L. Mort.	—	
Spanish, Quicksilver Mort., 5 p. ct.	96	98
United States Mort., 6 per cent.	95	97

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk.	Clos. pr
40000	Aberdannant, l, Llanidloes*	1 0 0	—	
10000	Aberystwith,* s-l, Cardigan	5 0 0	—	
80	Albion, i, Cornwall	100 0 0	100	100
7800	Alvig. & Burng.,* t, St. Aust.	3 0 0	3	2⅛ 3
18000	Ambrose Lake, t, c, Liskeard	1 18 6	—	
12000	Assheton, l, Carnarvonshire*	5 0 0	1	¾ 1
50000	Ballycummisk,* c, Schull	2 0 0	—	
12000	Bedford Unit.,* c, Tavist. (1l. liab.)	—	4s.	2s. 4s.
28000	Belstone,* c, Devon (27,000 fy. pd.)	1 0 0	—	
15000	Blaen United,* s-l, Cardigan	1 0 0	—	
3937	Blue Hills, t, c, St. Agnes	3 10 0	—	
20000	Bodidris,* l, bl, Denbighshire	1 0 0	1¼	1 1¼
1000	Bollihope Vale,* s-l, Durham	5 0 0	—	
200	Botallack, t, c, St. Just‡	121 5 0	—	
2000	Bowden Hill,* ma	1 0 0	—	
6000	Bradwell Moss Rake	1 0 0	1	⅞ 1
30000	Caldbeck Fells, l, Cumberland*	2 0 0	—	
50000	Cambrian,* s-l, c, Cardiganshire	2 0 0	3	2½ 3
3348	Cargoll, s-l, Newlyn‡	6 19 0	3	2½ 3
10000	Caron, l, Cardigan*	2 0 0	2¾	2¼ 2¾
20000	Central Foxdale, l, I. of Man* (2l. sh.)	1 5 0	—	
10000	Central Van,* l, bl, Llanidloes	5 0 0	—	
128	Clementina, l, Llanrwst	20 0 0	—	
7500	Combellack,* t, Wendron	2 0 0	—	
6000	Combmartin, s-l, North Devon	0 7 0	⅛	¼ ½
24000	Court Grange, s-l. (6000 sh. 10s. pd.)	1 0 0	1¼	1 1⅛
20000	Cwm Dwyfor,* c, s-l, Carnarvonsh	0 18 9	—	
6500	Cwm Lanarch,* s-l, Carnarvon	2 0 0	—	
3000	Cwmystwith (New) [5l. shares]	4 0 0	—	
512	D'Eresby Mountain, l, bl, Llanrwst	20 0 0	60	50 60
10000	Denbighshire Consolidated, l*	3 0 0	1	⅞ 1
12000	Derwent,* l, Durham	4 0 0	2	1¾ 2
10000	Dubby Syke, l, Durham*	0 12 6	½	½
6144	East Caradon, c, St. Cleer‡	2 16 6	1	¾ 1
4000	East Chiverton, l. Perranzabuloe	7 1 0	3	2 3
3000	East Craven Moor*, l, Pateley Bdge	10 0 0	10½	9½ 10½
6000	East Goginan, l, Cardigan	2 0 0	—	
18000	East Van, l, Llanidloes*	5 0 0	2½	2 2½
1722	East Wh. Lovell, t, Helston	8 11 0	1	¾ 1
20000	Elgar,* s-l, Cardiganshire	1 0 0	1¼	1 1¼
8000	Fronvellan, l, Mont.* [4000 sh. fy. pd.]	1 0 0	—	
3950	Gawton, c, Tavistock	4 5 5	4s.	2s. 4s.
12000	Glan Clwyd,* l, Gwyddelwern	1 0 0	—	
14000	Glenroy,* s-l, Isle of Man	4 5 0	1	¾ ⅞
10000	Glyn,* l, Llanidloes	2 0 0	⅝	⅜ ⅝
12000	Goginan, & Level Newydd, Card., l	2 10 0	—	
100000	Gold, g, Merionethshire	1 0 0	—	
20000	Goreu,* s-l, Carmarthen	1 0 0	1¼	1⅛ 1¼
20000	Gt. E. Foxdale, l, I. of Man (1l. sh)	0 18 0	—	
12000	Great Holway,* l, Flintshire	5 0 0	5½	5 5½
9500	Great Pant-y-Pydew, l, Holywell	2 0 0	—	
6000	Gt. Wheal Eleanor, t, North Bovey	1 0 0	—	
18000	Grosvenor, l, Holywell (£1 sh.)	0 15 0	—	
10000	Harehope Gill,* l, Durham (£1 sh.)	0 5 0	—	
6400	Harwood,* l, Durham	0 15 0	1	1
18000	Hingston Down, c, Calstock*†	0 5 0	⅜	⅜ ½
5000	Hush Eisteddfod Minera,* l	2 0 0	—	
200	Islay,* l, Scotland	28 0 0	—	
2500	Killaloe, sl, Tipperary‡	1 0 0	—	
6000	Killifreth, t, Chacewater	2 1 0	⅛	⅛
25000	Kingston Con., s-l, Stoke Climsland	1 0 0	—	
	Ditto, preference	1 0 0	1⅛	1 1⅛
12000	Ladywell,* l, Salop	2 10 0	1⅛	⅞ 1⅛
12000	Ditto, 10 per cent. pref., 1l. each	0 10 0	⅝	½ ⅝
2500	Levant, c, t, St. Just	9 18 6	—	
25000	Llanrhaiadr, l, Montgomery*	3 0 0	—	
6000	Livingstone Consols, t, St. Agnes	0 10 0	1	¾ 1
30000	Llanrwst,* l, Carnarvon	2 0 0	—	
15000	Llwyn Teify,* s-l, Cardigan	1 0 0	—	
6000	Medlyn Moor, t, Wendron	1 17 4	—	
11000	Melyndwr, l, Cardigan*	3 0 0	¾	½ ¾
11000	Monydd Gorddu, l, Cardigan* (Red.)	5 0 0	—	
25000	Nant-y-Ronen, s-l, Cardigan*	1 0 0	—	
15000	Nascent Copper*	1 0 0	—	
4525	New Bronfloyd,* l, Cardigan (5l. sh.)	3 10 0	2½	2 2½
8000	New Dolcoath, t, c, Camborne*	3 0 0	1¼	1⅛ 1¼
20000	New East Foxdale, s-l, Isle of Man	0 15 0	—	
16000	New Fowey Consols, t, St. Blazey*	3 0 0	2	1½ 2
1492	New Hendra, t, Breage	3 9 0	—	
3200	New South Merllyn, l, Flint*	2 10 0	1	½ 1
3500	New Tincroft,* t, Lelant	6 0 0	3	2½ 3
5000	New Wheal Emma, c, Buckfastleigh	2 0 0	—	
4000	North Cornwall,* l, Cornwall	5 0 0	5½	5¼ 5½
25000	North Laxey,* Isle of Man	2 0 0	6s.	4s. 6s.
2000	North Levant, t, c, St. Just‡	12 8 0	1	¾ 1
20000	North Prince Patrick,* l, Holywell	1 0 0	—	
5936	North Treskerby, c, St. Agnes	4 7 10	—	
2000	North Wheal Towan, t, c, Illogan	1 19 6	—	
6400	Oola Hills,* s-l, Limerick	5 0 0	—	
12000	Pandora,* l, Carnarvon	2 0 0	1	¾ 1
30000	Panty Mwyn,* l, Mold (8794 iss.)	2 0 0	—	
16923	Parys Mountain,* c, Anglesea	3 0 0	½	⅜ ½
4000	Pateley Bridge, l, Yorkshire	5 0 0	3¼	2½ 3
12000	Plynlimmon, l, Llanidloes*	2 0 0	6s.	4s. 6s.
648	Polrose, t, Breage	21 0 0	—	
10000	Port Nigel,* s-l, Carnarvonshire	2 0 0	½	¼ ½
2000	Prideaux Wood, t, Llanivery	5 0 0	—	
5182	Prince of Wales, c, Calstock‡	2 4 0	¼	⅛ ¼
6000	Relistian Consols, c, Gwinear	0 10 0	⅝	½ ⅝
15000	Rookhope, l, Durham*	1 10 0	1	⅞ 1
5000	Silvercross,* c, t, Marazion	1 0 0	—	
4200	Snowbrook, s-l, Montgomery	5 0 0	—	
6000	So. Cwmystwith, l, Cardiganshire	2 0 0	4	3½ 4
6000	South Darren, l, Cardigan*	1 10 0	1¾	1½ 1¾
512	South Dolcoath, c, t, Redruth	12 5 0	1⅛	1 1⅛
5000	So. Molton Cons., s-l, No. Devon	0 2 0	1	1¼ 1⅛
18000	South Roman Gravels, l*	1 10 0	⅝	½ ⅝
6000	South Roskear, t, c, Camborne	6 10 0	5	4 5
6000	South Tolcarne, t, c, Camborne	2 11 6	¾	½ ¾
937	South Wheal Crofty, c, Illogan	39 10 10	10½	9 10
4500	South Wh. Frances, c, Illogan†	7 12 4	3	2½ 3
6000	St. Lawrence, Amal., l, Flintshire*	2 0 0	—	
10000	St. Patrick, l, Halkin, Holywell*	1 0 0	1⅛	1 1⅛
6000	Success, &c., l, Derb. (12,000l. called)	1 0 0	—	
16000	Sunnyside,* l, Durham	2 0 0	2½	2 2½
30000	Talybont, s-l, Cardiganshire	1 0 0	1¼	1 1¼
6400	Teesdale,* l, Durham	1 0 0	⅞	¾ ⅞
14000	Teign Valley, l, bar., Bridford	1 0 0	—	
10000	Temple, l, Cardigan*	1 0 0	2⅝	2½ 2¾
10000	Tolgus Consols,* c, Redruth	5 0 0	5½	5 5½
12000	Trebeigh Consols, s-l, St. Ive	0 9 6	⅜	¼ ⅜
5000	Treleigh Wood, t, Redruth	6 1 0	—	
12000	Trethellan, s-l, Crantock*	2 0 0	—	
640	Truro*, l, Nerquis, Flintshire	10 0 0	—	
10000	Tyn-y-Fron,* l, Cardigan	1 0 0	2	1½ 1¾
20000	Van Consols, l, Llanidloes*	2 10 0	½	⅜ ½
1000	Vaughan*, l., Cardiganshire	10 0 0	—	
12000	West Assheton, l, Carnarvon	1 0 0	¾	½ ¾
6000	West Basset, c, Illogan†‡	6 6 8	2¾	2 2¾
5500	West Combmartin, s-l, North Devon	1 0 0	—	
7000	Ditto	0 2 6	—	
3000	W. Craven Moor, l, Pateley Bridge*	10 0 0	10	9 10
5000	West Godolphin, t, c, Breage	2 10 0	1⅛	1¼ 1¾
12000	West Goginan,* Cardiganshire	2 0 0	⅜	⅛ ⅜
10000	West Llangynog, s-l, Montgomery	2 0 0	—	
3000	West Mary Ann, l, Menheniot	0 3 6	1	⅞ 1
50000	West Milwr, s-l, Flint	1 0 0	—	
5000	West of England Granite Company	2 0 0	2	2
20000	West Pateley Bridge, l, Yorkshire	1 0 0	2¼	1½ 2
1000	West Roskear, t, s-l, bl, c, Camborne	2 0 0	7½	
12000	West Tankerville,* l, Salop	3 0 0	⅞	⅝ ⅞
3000	Ditto, 15 per cent pref.	3 0 0	2	1¾ 2
3000	West Wheal Peevor, t, Redruth	0 10 0	6½	6 6½
600	West Wheal Seton, c, Camborne†	47 0 0	14	12 14
6000	Wheal Agar, c, Illogan	12 0 0	4¼	3¾ 4¼
512	Wheal Basset, c, Illogan‡	24 2 6	12	10 12
6000	Wheal Coates, t, St. Agnes	2 0 0	—	
2635	Wheal Comfort, c, Gwennap	1 5 0	—	
6000	Wheal Crebor, c, Tavistock	4 1 0	1	¾ 1
5179	Wheal Grenville, c, Camborne*	3 6 6	3	2½ 3
2000	Wh. Mary Hutchings,* t, Plympton‡	1 18 6	—	2 2¼
3000	Wheal Peevor, t, Redruth	7 11 0	6¼	6 6½
12000	Wheal Russell, c, Tavistock	2 1 6	—	
14096	Wheal Uny, t, s, Redruth	13 15 6	1¼	¾ 1
2324	White Cliff,* l, Llanrwst	5 0 0	—	

b, blende; cl, coal; c, copper; g, gold; l, lead; s, silver; sl, slate; s-l, silver-lead; t, tin; z, zinc.

* Limited Liability Companies; † quoted on the Stock Exchange; ‡ have paid dividends.

IRON AND COAL COMPANIES.

Shares.	Company.	Paid.	Prices.		
£100	Abbot, John, and Co. [L.]	£75 0 0	9	8	dis.
15	Albion Steel and Wire Co. [L.]	14 0 0	5	4½	dis.
5	Alltami Colliery Co. [L.]	5 0 0	4	3½	dis.
100	Ashbury Co. [L.]	90 0 0	55	45	dis.
10	Bagnall, John, and Sons [L.]	10 0 0	7	6½	dis
10	Benhar Coal Co. [L.]	10 0 0	1½	1	dis.
50	Bilbao Iron Ore Co. [L.]	50 0 0	19	21	
10	Bilson & Crump Meadow Coll. Co. [L.]	10 0 0			
4	Blaen Cwmbach Coal Co. [L.]	4 0 0		—	
50	Blaenavon Iron and Steel Co. [L.]	50 0 0		—	
100	Bolckow, Vaughan, and Co. [L.]...A	50 0 0		—	
50	Bowling Iron Co. [L.]	50 0 0	3	4	pm.
50	Britannia Ironworks [L.]	25 0 0		—	
50	Brown, Bailey, and Dixon [L.]	40 0 0	15	13	dis.
100	Brown, John, and Co. [L.]	70 0 0	12	11	dis
5	Cakemore Colliery Co. [L.]	5 0 0	1¼	2¼	
100	Cammell and Co. [L.]	80 0 0	7	6½	dis.
10	Cannock and Huntington Coal [L.]	6 0 0	2	2½	dis.
10	Cardiff & Swansea St. Coal Co. [L.]	9 0 0	¾	1¼	
10	Cardigan Steel and Wire Co. [L.]	8 10 0		—	
10	Central Swedish Iron and Steel [L.]	10 0 0	1	3	
5	Chapel House Colliery	5 0 0	2¾	3¼	
50	Charlton Iron Co. [L.]	50 0 0	12	14	
50	Chatterley Iron Co. [L.]	45 0 0	26	25	dis.
10	Chillington Iron Co. [L.]	10 0 0	7	6½	dis.
1	Clee Hill Colliery Co. [L.]	1 0 0		—	
10	Consett Iron Co. [L.]	7 10 0	17¼	17½	pm.
1	Consett Spanish Ore [L.]	1 0 0	¼	⅛	dis.
50	Cooke, William, and Co. [L.]	40 0 0	32	30	dis.
20	Darlington Iron Co. [L.]	12 10 0	¾	⅞	
50	Davy Brothers [L.]	22 10 0	5	5½	pm.
5	Diamond Fuel Co. [L.]	5 0 0		—	
32	Ebbw Vale Co. [L.]	39 0 0	23	21	dis.
100	Fox, Samuel, and Co. [L.]	80 0 0	26	28	pm
10	General Mining Ass. [L.] (£1 returned)	9 0 0	2	3	
20	Great Western Coal Co. [L.]	17 0 0		—	
2	Gwyngwillim Colliery Co. [L.]	2 0 0		—	
15	Hopkins, Gilkes, and Co. [L.]	11 0 0	7¾	7¼	dis.
50	Knowles, Andrew, and Sons [L.]	17 0 0	2	2¼	pm.
10	Llay Hall Coal, Iron, & Firebrick [L.]	10 0 0	2	1	dis.
5	Littledean Woodside Coll. Co. [L.]	5 0 0		—	
50	Llynvi, Ogmore, & Tondu Co. [L.]	50 0 0	7	8	
10	Lydney and Wigpool Iron Ore [L.]	8 5 0	10	9	dis.
10	Marbella Iron Ore Co. [L.]	10 0 0	7½	7	dis.
6	Mersey Steel and Iron Co. [L.]	5 0 0		—	
10	Midland Iron Co. [L.]	5 0 0	¼ dis	¼	pm.
5	Mold Argoed Colliery Co. [L.]	5 0 0	3	2½	dis.
10	Monkland Iron and Coal Co. [L.]	10 0 0	7½	7	dis.
4	Mwyndy Iron Ore [L.]	3 10 0		—	
100	Nant-y-Glo and Blaina (8 p.c. pref.)	100 0 0	14	17	
3	Nerbudda Coal and Iron [L. & Red.]	2 0 0	1	1¼	
20	New Sharlston Collieries [L.] Pref.	20 0 0	17½	16	dis
10	Newport Abercarn Coal Co. [L.]	10 0 0	4	4½	
10	Northmptn. Coal, Iron & Wagon [L.]	8 0 0		—	
10	Northfield Iron Co. [L.]	8 0 0	3½	3	dis.
1	Norton Green Coal Co. [L.]	1 0 0		—	
35	Palmer's Shipbuilding and Iron [L.]	25 0 0	15	14½	dis.
100	Parkgate Iron Co. [L.]	65 0 0	10	8	dis.
20	Patent Nut and Bolt Co. [L.]	14 0 0	6½	7	pm.
20	Patent Shaft and Axletree [L.]	10 0 0	¼ dis.	par	
20	Pelsall Coal and Iron [L.]	15 0 0	12½	11½	dis.
50	Phœnix Bessemer Co. [L.]	40 0 0		—	
50	Rhymney Iron Co. [L.]	50 0 0	22	24	
10	Richards and Co. [L.]	10 0 0		—	
100	Sandwell Park Colliery Co. [L.]	100 0 0		—	
50	Ditto New	10 0 0	18¼	19¼	
50	Shotts Iron Co. [L.]	50 0 0	46	47	
100	Sheepbridge Iron and Coal [L.]	55 0 0	10	9½	dis
50	Silkstone & Dodworth Cl. & Iron [L.]	27 0 0		—	
20	Skerne Ironworks [L.]	20 0 0	14½	14	dis.
50	Somorrostro Iron Co. [L.]	50 0 0		—	
25	South Wales Coal Co. [L.]	21 0 0	6½	7½	
100	Staveley Iron and Coal Co. [L.]	60 0 0	25	26	pm.
100	Ditto ditto New	10 0 0	4	4½	pm.
10	Swansea Valley Steam Coll. Co. [L.]	6 0 0		—	
100	Thames Iron Company	100 0 0			
50	Tredegar Iron and Coal Co. [L.]	20 0 0	11	9	dis
25	Ditto B. shares	25 0 0	21	22	
20	Ulverston Mining Co. [L.]	12 0 0	5	3	dis.
10	Vancouver Coal [L.]	6 0 0	1½	1½	dis
100	Vickers, Sons, & Co. [L.]	100 0 0	24	26	pm
50	Welsh Ironworks Co. [L.]	50 0 0		—	
25	W. Cumberland I. and Steel [L.]	20 0 0	13½	12½	dis
10	West Mostyn Coal [L.] (12 p.c. pref.)	5 0 0		—	
5	West Swansea Colliery Co. [L.]	5 0 0		—	
10	Whitehaven Iron Co. [L.]	10 0 0		—	
100	Wigan and Whiston Coal Co. [L.]	70 0 0		—	
100	Wigan Coal and Iron Co. [L.]	75 0 0		—	

WAGON COMPANIES.

Shares.	Company.	Paid.	Prices.		
10	Birmingham Wagon Co. [L.]	10 0 0	19	19¼	
10	Ditto, 2nd issue	4 0 0	3¼	3⅜	pm.
10	Ditto, pref., 6 per cent.	10 0 0	12	12½	
20	British Wagon Co. [L.]	10 0 0	par	½	pm.
10	Gloucester [L.]	10 0 0	par	½	pm.
10	Ditto, 5th issue	5 0 0	⅛ dis.	⅛	pm.
10	Met. Rail. Car. and Wagon Co. [L.]	5 0 0	3½	3¾	pm.
5	Ditto, pref., 6 per cent.	5 0 0	5¾	6	
10	Midland	10 0 0	7	7½	pm.
20	North Central Wagon Co.	20 0 0	27½	27¾	
5	Rail. Car. [L.] (Oldbury)	5 0 0	6	6¼	
5	Ditto, pref., 6 per cent.	5 0 0	5	5½	
20	Sheffield Wagon Co. [L.]	15 0 0	3¼	3¾	pm
10	Yorkshire Wagon Co. [L.]	10 0 0	4½	5	pm

TELEGRAPH COMPANIES.

Shares.	Company.	Paid.	Prices.	
"St."	Anglo-American	100 0 0	59¼	59¾
10	Brazilian Submarine	10 0 0	6¾	7
20	Direct United States Cable	20 0 0	12⅜	12⅝
10	Eastern	10 0 0	7¼	7½
10	East. Exten., Australia and China	10 0 0	7¼	7⅝
10	Great Northern	10 0 0	7	7¼
25	Indo-European	25 0 0	19	20
10	Mediterranean Extension	10 0 0	2½	3
8	Reuters	8 0 0	9½	10¼
Stk.	Submarine	100 0 0	223	228
10	West India and Panama	10 0 0	2⅜	2⅞
20	Western and Brazilian	20 0 0	4⅞	5⅛
$1000	Western Union, 7 per cent. Mort. Bonds	$1000	112	114

MISCELLANEOUS.

Shares.	Company.	Paid.	Prices.		
Stk.	Atlantic and Great Western Leased Lines, Rental Trust	100 0 0	38	40	
25	Australian Agricultural	21 10 0	92	94	
25	Austral. Mort. Land and Finance [L.]	5 0 0	5¾	6¼	pm
10	Avonside Engine [L.]	7 0 0	5	3	dis.
Stk.	Baltimore and Ohio, 6 per cent.	100 0 0	104	106	
10	Brighton Aquarium [L.]	10 0 0	10	11	
Stk.	Cent. of New Jersey Con. Mort.	100 0 0	65	67	
Stk.	Cent. Pacific of Calif., 1st Mort. 6 p.c.	100 0 0	105	106	
25	City of London Real Property [L.]	12 0 0	1	1½	pm
5	Diamond Rock Boring	4 10 0	2¼	2¾	dis.
15	English and Foreign Credit	8 0 0		—	
16	Fore Street Warehouse [L.]	14 0 0	9	10	pm
15	Foster, Porter, and Co. [L.]	10 10 0	10	11	pm xd
5	Gen. Phos. & Chem. Works Co. [L.]	5 0 0		—	
1	Greenhill [L.]	1 0 0	1	1¼	
5	Kit Hill Tunnel [L.]	1 0 0	1	1¼	
17	Hudson's Bay Company	17 0 0	10¼	10¾	
10	Huntington Copper and Sul. Co.	9 0 0	8¼	7¾	dis.
Stk.	Illinois Central, $100 shares	100 0 0	76⅛	77½	
Stk.	Illinois & St. Louis Bridge, 1st Mort.	100 0 0	94	96	
Stk.	Ditto, 2nd Mort., 7 per cent.	100 0 0	50	55	
Stk.	Illinois Cent. Sinking Fund, 5 p. cent.	100 0 0	98	100	
Stk.	Ditto, 6 per cent.	100 0 0	107	109	
7½	Imperial Credit [L.]	7 10 0	7⅛	7⅜	
—	Ditto, Surplus Certificate	—	5⅞	6⅛	
Stk.	Lehigh Val. Con. Mort., A, 6. p. cent.	100 0 0	99	101	
10	Milner's Safe [L.]	10 0 0	7¼	7¾	
25	National Discount [L.]	5 0 0	9½	10	
Stk.	N. Cent. Rail. Con. Mort., 6 per cent.	10 0 0	80	82	
10	Pawson and Co. [L.]	8 0 0	¼ dis.	¼	pm
50	Peninsular and Oriental Steam	50 0 0	38	40	
Stk.	Pennsyl. Gen. Mort. 6 p. cent., 1910.	100 0 0	104½	105½	
Stk.	Ditto, Con. Sink. Fund, 6 p. ct., 1905	100 0 0	92	93	
Stk.	Scottish Aust. Investment Company.	100 0 0	190	200	
Stk.	Ditto, 6 per cent. Preference	100 0 0	125	130	
10	Silber Light (ord. sh.)	10 0 0			
20	Suez Canal shares	20 0 0		—	
12	Telegraph Construc. & Mainte. [L.]	12 0 0	28½	29½	
5	Ditto, Second Bonus Three per Cents	5 0 0	2½	2⅝	
10	Tharsis Sulphur and Copper Co.	10 0 0	21½	22½	
Stk.	Union Pacific Land Grant, 1st Mort.	100 0 0	104	106	
Stk.	Union Pacific Railway, 1st Mort.	100 0 0	104	106	

London: Printed by RICHARD MIDDLETON, and published by HENRY ENGLISH (the proprietors), at their office, 26, FLEET STREET, E.C., where all communications are requested to be addressed.—February 2, 1878.